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HTH 33

Urban Section

Draft Supplemental Environmental Impact Statement

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Region 5

Minnesota Trunk Highway 33 from junction of Interstate 35
to junction of U.S. Trunk Highway 53.
Carlton & St. Louis Counties

Minnesota Project F 073-1()
Minnesota State Project 0905-38, 0905-39, 0906-31,
0906-32, 6911-25, 6911-26

Supplemental Draft
Environmental Impact Statement and 4(f) Evaluation
Submitted Pursuant to 42 U.S.C. 4332(2)(c), 49 U.S.C. 303
U.S. Department of Transportation
Federal Highway Administration
and
Minnesota Department of Transportation

Cooperating Agencies
U.S. Fish and Wildlife Service
U.S. Army Corps of Engineers
U.S. Bureau of Indian Affairs
MN Department of Natural Resources
MN Pollution Control Agency

4-28-87

Date of Approval For Mn/DOT

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The proposed action involved improvements from the junction of I-35 and TH 33 to the junction of TH 33 and TH 53, a distance of 19.7 miles. The north 13.2 miles (Rural Section) has been fully documented in the TH 33 DEIS and FEIS and is now under construction. This supplement deals with the south 6.5 miles (Urban Section). Various location and design alternatives are discussed. The facility may involve the use of property classified as section 4(f) property.

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Summary

SUMMARY

DESCRIPTION OF PROPOSED ACTION

This Draft Supplemental Environmental Impact Statement (EIS) concerns itself with the proposal of the Federal Highway Administration (FHWA) and the Minnesota Department of Transportation (Mn/DOT) for improving Trunk Highway 33 (TH 33) to a four lane expressway from the junction with Interstate 35 (I-35) north to the junction with County Road 56 (Morris Thomas Road). This project segment is referred to as the Urban Section. From the Morris Thomas Road north to the junction with Trunk Highway 53 (TH 53) a previously approved project to upgrade TH 33 to a four lane expressway is under construction. This project segment is referred to as the Rural Section. Refer to Figure 1S.

On October 16, 1985 the FHWA approved a Final Environmental Impact Statement for this corridor. This FEIS identified a preferred build alternative for the northern rural section and a temporary no-build for the southern urban section. This was done to allow more time to study the urban section (Refer to Figure 2S). The selection of the Morris Thomas Road to delineate the Urban and Rural Sections was made in order that selection of a preferred alternative in the Rural Section would not preclude the selection on any Urban Section alternative. This report complies with the statement on page 45 of the FEIS stating that a Supplement will be prepared for the Urban Section.

OTHER GOVERNMENTAL ACTIONS

The State of Minnesota, the Bureau of Indian Affairs, and the Fond Du Lac Reservation are jointly working on a proposal to construct a 2 year community college within the reservation boundaries. The college would be constructed on the site of the University of Minnesota-Forestry Station; would cost approximately \$5 million; and would serve from 500 to 750 students. Funding would be provided by the Minnesota Legislature and the Bureau of Indian Affairs. This proposal does not conflict with any of the TH 33 alternatives.

MAJOR
ALTERNATIVES

The following major alternatives were considered (Refer to Figure 3S):

- West Cloquet Bypass: A bypass west of Cloquet
- East Cloquet Bypass: A bypass east of Cloquet
- Through Town Corridor: Along existing TH 33
- No Build Alternative

SIGNIFICANT
ENVIRONMENTAL
IMPACTS

The proposed action would:

- provide four lane route continuity between the Twin Cities metropolitan area and the Iron Range (Build Alternatives).
- displace from 0 to 23 residences, 0 to 2 small businesses.
- impact from 25 to 54 acres of wetland.
- result in a decrease in the number of receptors exceeding the federal and state noise standards. (The number of receptors exceeding state noise standards would increase with the through town alternative.)
- require relocation of a portion of the abandoned Scanlon landfill (East Cloquet Bypass).
- impact one historic site on the Through Town or East Cloquet Bypass alternatives.
- impact a significant park, and an undeveloped park (West Cloquet Bypass).

-involves the Fond Du Lac Indian Reservation (West Cloquet Bypass).

AREAS OF
CONCERN

Areas of significant concern raised by agencies and the public include:

- need for constructing TH 33 to a four lane expressway.
- economic impacts of bypassing Cloquet.
- impact caused by the relocation of homes and businesses.
- Indian Reservation.

- Historic sites and 4(f) lands.
- Relocation of the abandoned Scanlon landfill.

UNRESOLVED
ISSUES

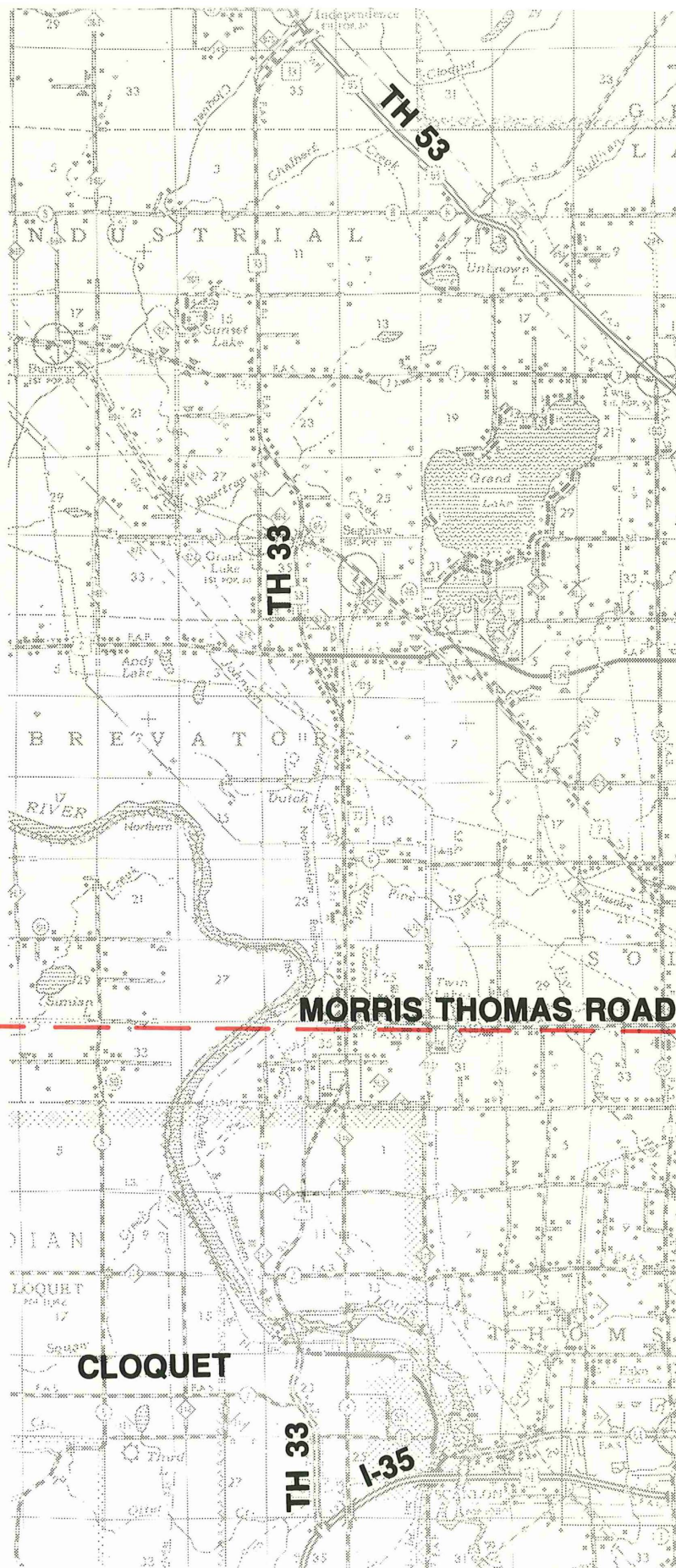
The only unresolved issue in the urban section of the project is the final development of a preferred alternative.

PERMITS/APPROVALS

The following permits and/or approvals will be required for the TH 33 project:

U.S. Army Corps of Engineers - 404 permit
Mn/PCA - 401 certification
Mn/DNR - Public Water Permit
City of Cloquet - Plan Approval
City of Scanlon - Plan Approval (East Cloquet Bypass)
Fond Du Lac Indian Reservation - Plan Approval (West Cloquet Bypass)
Solid Waste Disposal Permit (East Bypass)

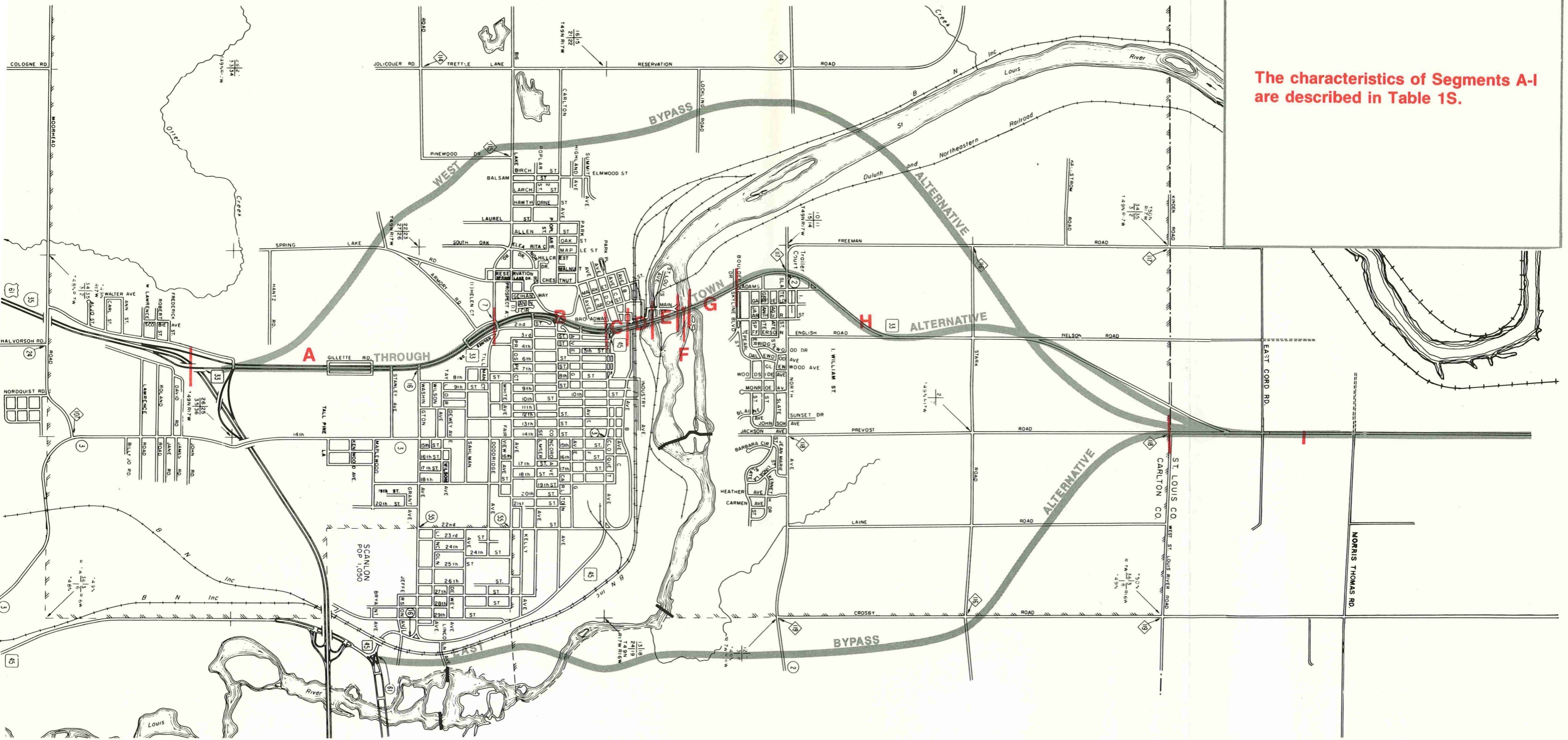
RURAL SECTION
URBAN SECTION



TH 33

Urban Section

Figure 1S: PROJECT LOCATION



LEGEND

The characteristics of Segments A-I are described in Table 1S.

Figure 2S: URBAN SECTION STUDY AREA

NORTH

TH 33
Urban Section

Supplemental EIS

LEGEND

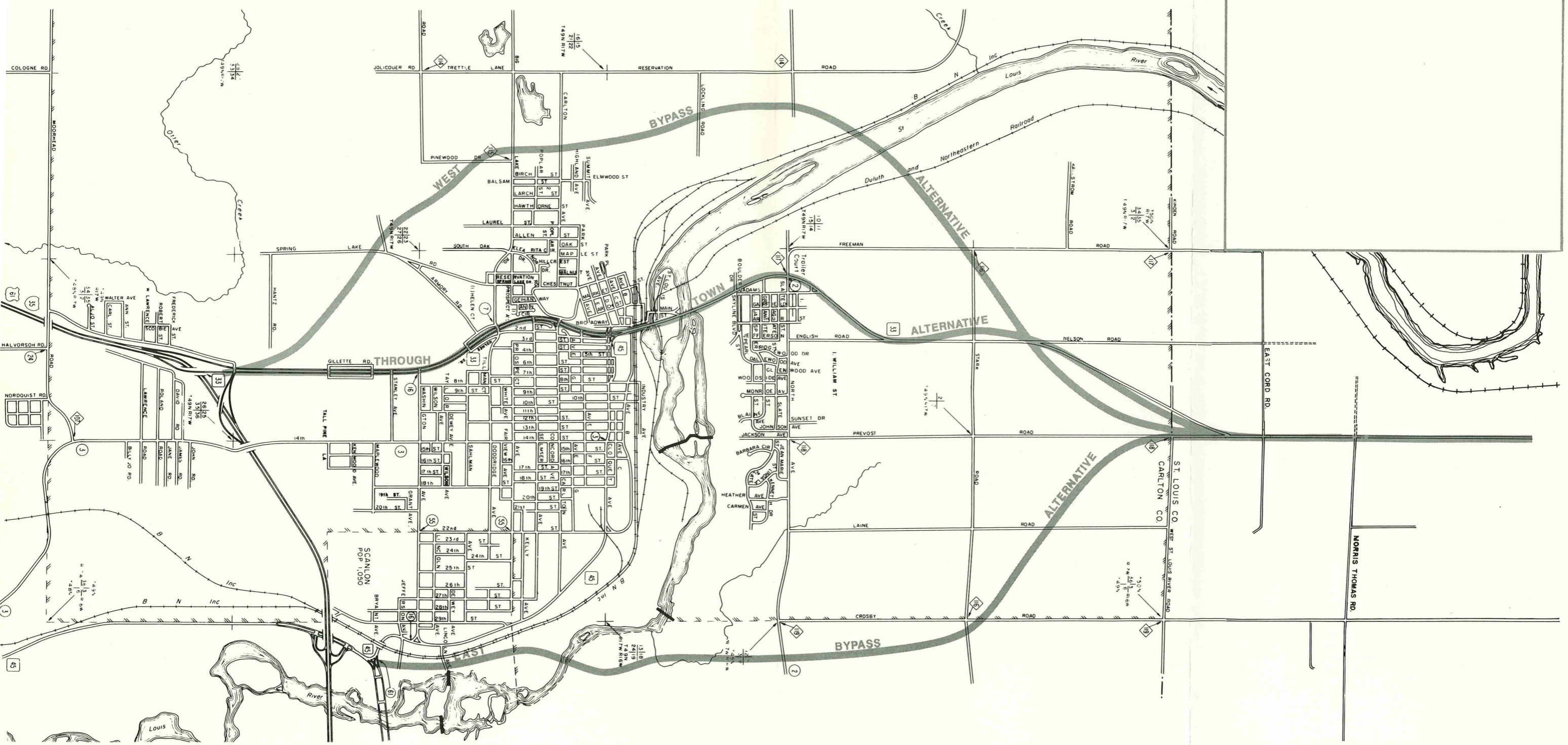


Figure 3S: PROJECT ALTERNATIVES

**Purpose
and Need**

PURPOSE AND NEED

EXISTING FACILITY

TH 33 is primarily a two lane road originally constructed prior to 1934 and upgraded to a paved surface between 1937 and 1939. The bridge from Dunlap Island to the north bank of the St. Louis River was built in 1934. and the bridge from the south bank of the St. Louis River to Dunlap Island was built in 1940.

The southern two miles of the highway have been rebuilt to four lanes. In 1952, four lanes were built from TH 45 to Doddridge Avenue (County Road 16). I-35 near Cloquet was constructed in 1966 and, as part of that project, TH 33 was rebuilt to four lanes from Doddridge Avenue to I-35. An improved interchange between TH 33 and I-35 was constructed in 1983. Table 1S has a summary of existing roadway characteristics of TH 33.

TABLE 1S
EXISTING ROADWAY CHARACTERISTICS OF TH 33

REFERENCE POINTS	DRIVING LANES NUMBER AND WIDTH	ROADWAY CHARACTERISTICS			
		SHOULDERS NUMBER AND WIDTH	TYPE OF ROAD SURFACE *	RIGHT OF WAY WIDTH (FEET)	SIDEWALK LOCATION AND WIDTH
**A) I-35 to Doddridge Ave.	4 at 12 feet	1 at 3 feet 1 at 8 feet	B	225 to 287.5	None
B) Doddridge Road to TH 45	4 at 12 feet	None	B	125 to 250	None
C) TH 45 to S. end of Br. 5273	2 at 12 feet(w 13'gore area)	None	B	100	None
D) S. end of Br. 5273 to the N. end	2 at 15 feet	None	C	Public Waters	West 6 feet
E) N. end of Br. 5273 to the S. end of Br. 5272	2 at 12 feet	2 at 7 feet	B	155	West 5 feet
F) S. end of Br. 5272 to the N. end	2 at 15 feet	None	B	Public Waters	West 5.8 feet
G) N. end of Br. 5272 to N. Jct. of Adams St.	1 at 14 feet 2 at 12 feet	1 at 8 feet	B	125 to 255	East 5 feet

*Note: B-Bituminous C-Concrete

**Note: Letters correspond to roadway sections labeled on Fig. 2S

***Note: Portions of this highway segment are programmed for construction to four lanes in 1987 and 1988.

TABLE 1S CONT'D
EXISTING ROADWAY CHARACTERISTICS OF TH 33

REFERENCE POINTS	DRIVING LANES NUMBER AND WIDTH	ROADWAY CHARACTERISTICS			
		SHOULDERS NUMBER AND WIDTH	TYPE OF ROAD SURFACE *	RIGHT OF WAY WIDTH (FEET)	SIDEWALK LOCATION AND WIDTH
H) N. Jct. of Adams St. to St. Louis-Carlton Line	2 at 12 feet	2 at 8 feet	B	125 to 255	None
***I) St. Louis-Carlton Co. Line to TH 2	2 at 12 feet	2 at 4 feet	B	150 to 200	None

*Note: B-Bituminous C-Concrete

**Note: Letters correspond to roadway sections labeled on Fig. 2S

***Note: Portions of this highway segment are programmed for construction to four lanes in 1987 and 1988.

SYSTEMS PLANNING

The following improvement projects were recently completed or scheduled to be constructed.

- Four lane construction from Seville Rd. to T.H. 33. (1986 thru 1988) The project was approved in the FEIS.

- Frontage road construction in Cloquet from Washington Avenue to Doddridge Avenue (completed).

- TH 33/TH 45 intersection improvements in Cloquet (1987 construction).

These improvements are intended to improve traffic flow, safety and access to commercial property adjacent to the highway. These improvements have independent need and utility and will be constructed regardless of which TH 33 urban alternative is selected.

The Arrowhead Regional Development Commission (ARDC) developed a 20 year

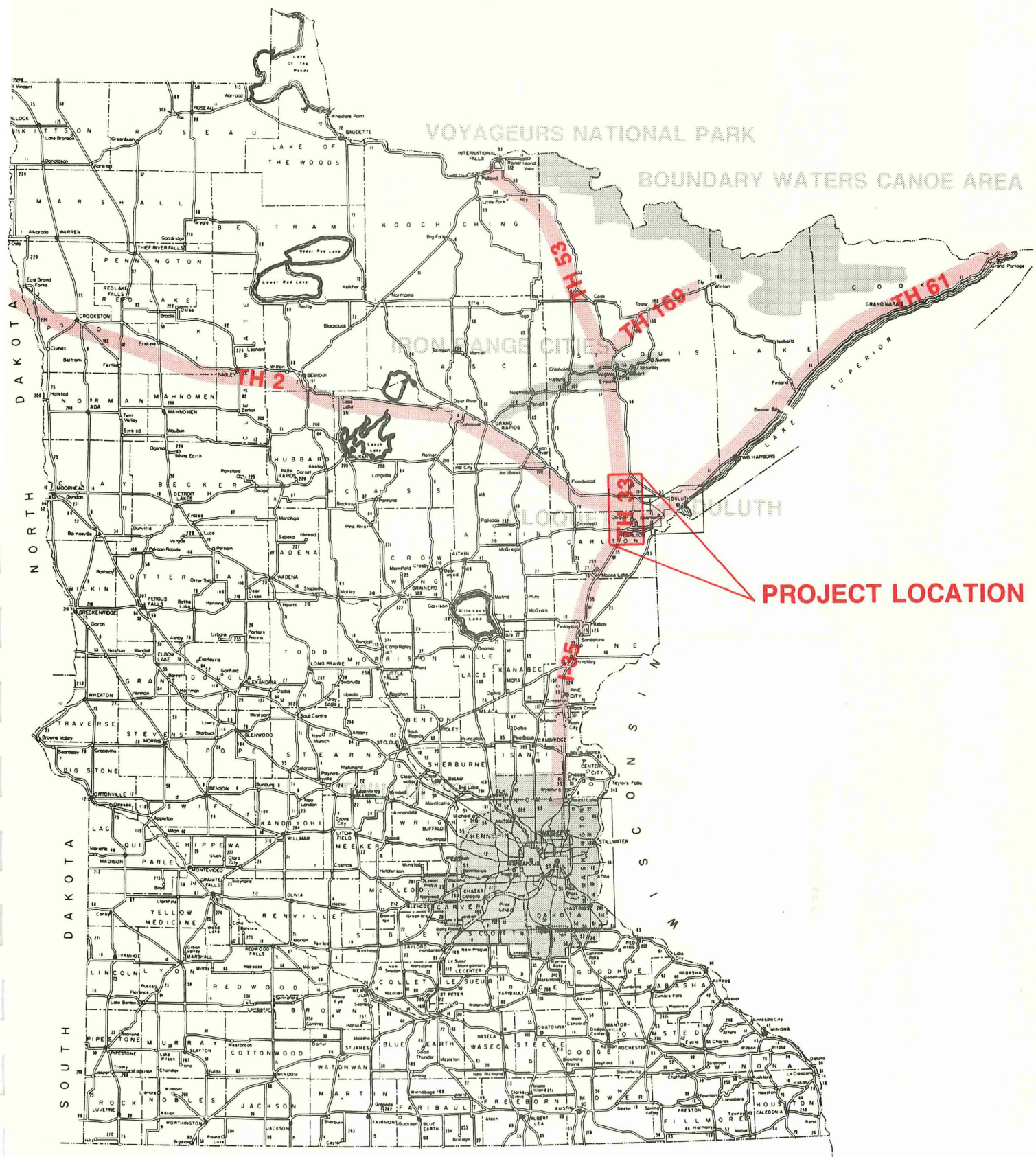
Highway Investment Strategy for the region in 1979 and has updated this highway improvement plan in 1981, 1983 and 1985. ARDC's 1985 20 year highway improvement priorities include support of a 4-lane improvement on TH 33 from TH 45 To TH 53.

TH 33 is functionally classified as a principal arterial. It primarily serves as a commuter route to the Cloquet area. It also serves as the primary route between I-35 and TH 53 for travel to and from the Iron Range cities, Voyageurs National Park, the Boundary Waters Canoe Area, and other destinations in northern Minnesota and Canada (Figure 4S). TH 33 is a major truck route, particularly the segment between Cloquet and TH 2.

PROJECT OBJECTIVES

The primary function of the Urban Section of TH 33 is to provide a route either through or around the City of Cloquet while meeting the following objectives:

- to provide adequate levels of service for vehicles traveling TH 33.
- to improve accessibility to tourism areas of northern Minnesota, including Voyageurs National Park and the Boundary Waters Canoe Area Wilderness.
- to stimulate and support business expansion and long term economic growth by investing in transportation facility improvements.
- to provide four lane continuity. TH 33 is the only gap in the approximately 200 miles of four lane highway (I-35 and TH 53) between the Twin Cities and the Iron Range cities.
- to decrease the number of highway accidents, particularly along the portion of TH 33 between I-35 and TH 2.
- to improve traffic flow through the City of Cloquet.
- to replace or improve deficient bridge structures.



PROJECT LOCATION

TH 33

Figure 4S: SYSTEMS MAP

Urban Section



Traffic

Existing 1984 Average Daily Traffic (ADT) and projected ADT for the year 2006 for the various segments of TH 33 are shown in Table 2S. Traffic projections or forecasts are made using historic trends for the past 20 years and are augmented with known development plans for the region. In this case, traffic figures were developed to reflect recreational usage of the Voyageurs National Park area by 800,000 visitors per year. This estimate of park visitors is referenced in the "Voyageurs National Park Road Access Study" performed by the Federal Highway Administration in cooperation with the National Park Service in 1984 (See Appendix).

TABLE 2S
PRESENT AND PROJECTED TRAFFIC VOLUMES

Location	1984 ADT	2006 ADT

Thru-Town Corridor		
~~~~~		
North of TH 45	9000	14450
South of TH 45	10300	24390
North of I-35	6300	10700
-----		
East Bypass *		
~~~~~		
North of TH 45	N/A	3300
South of TH 45	N/A	12640
North of I-35	N/A	12640

West Bypass **		
~~~~~		
South of Morris-Thomas Road	N/A	9830
North of Present TH 33 Inter.	N/A	4900
North of I-35	N/A	10690
-----		

*Note: 7300 ADT will remain on present TH 33 with this alternative

**Note: 5540 ADT will remain on present TH 33 with this corridor

Level of Service

The traffic carrying ability of a road is measured by the "Level of Service" it provides under design hour traffic conditions. Level of Service is graded as follows:

- A) Free traffic flows with no restrictions on ability to select speed or lane.
- B) Stable traffic flows with reasonable freedom to select speed and lane.
- C) Stable traffic flows with some restrictions on speed and lane selection.
- D) Approaches unstable flow with little freedom to maneuver.
- E) Flow is unstable and there may be stoppages of momentary duration.
- F) Stop and go traffic flow, with highly unstable and unpredictable operations.

Rural trunk highways are normally designed to satisfy a Level of Service "B" while urban highways are designed to a Level of Service "C". An upgraded two lane roadway (paved shoulders, flattened inslopes, etc.) between TH 45 and TH 53 was tested for an expected level of service using procedures outlined in Chapter 8 of the "1985 Highway Capacity Manual". The portion between I-35 and TH 45 is presently a four lane divided facility. The following factors were applied to the formulae in Chapter 8:

- A) Terrain  
The terrain along TH 33 is classed as "level" for use in the formulae.
- B) Per Cent No Passing  
38% of inplac TH 33's length consists of "No Passing" zones. This information was obtained from District Traffic Office and roadway construction plans.
- C) Trucks  
Truck percentages range from
  1. 8.8 percent at TH 45
  2. 16.5 percent at TH 2
  3. 12.0 percent at TH 53
- D) Recreational Vehicles  
The consulting firm of Edwards and Kelcy did a study for Mn/DOT on TH 61 on the North Shore of Lake Superior. This is a well recognized tourist route. Their findings were that 20 percent of the

traffic stream could be expected to be recreational vehicles in the peak summer months of the year 1990. Further, that figure was expected to increase to over 25 percent by the year 2000. TH 33 and TH 61 have similar tourist traffic characteristics, therefore this capacity analysis uses 20 percent of the traffic stream as recreational vehicles.

The design hour traffic volume is the 30th highest forecasted one hour volume in the design year. The design year is 20 years from the construction of the facility or, in this case, the year 2006. This design hour volume is used along with the desired Level of Service to determine the appropriate highway configuration.

Table 3S gives the resulting design hour service levels from TH 45 to TH 53 by location. As noted in Table 3S, the expected service levels for an upgraded two lane roadway range from level "D" at TH 53 to level "F" at TH 45 in Cloquet. Since these expected service levels do not meet the objective of providing levels "B" and "C" in the rural and urban areas, respectively, a four lane divided roadway is required. In addition, a comparative analysis was made excluding any additional Voyageurs National Park traffic estimates. This analysis indicated that excluding the Park traffic would not significantly affect the expected levels of service in Table 3S and a four lane divided roadway would still be required.

TABLE 3S  
 DESIGN YEAR SERVICE LEVELS ON TH 33  
 (UPGRADED TWO LANE ROADWAY)

LOCATION	* CAPACITY MANUAL SERVICE LEVEL RANGES IN PASSENGER CARS PER HOUR				** PROJECTED DESIGN VOLUME IN PASSENGER CARS PER HOUR	EXPECTED LEVEL OF SERVICE
	B	C	D	E		
N. of TH 45	215 to 430	430 to 690	690 to 1300	1300 to 2165	2240	F
N. of Morris Thomas Rd.	210 to 385	385 to 655	655 to 1265	1265 to 2110	1815	E
S. of TH 2	205 to 370	370 to 630	630 to 1230	1230 to 2050	1415	E
N. of TH 2	205 to 400	400 to 685	685 to 1195	1195 to 1995	1070	D
S. of CR 7	210 to 400	400 to 690	690 to 1250	1250 to 2080	1180	D
S. of TH 53	210 to 400	400 to 685	685 to 1240	1240 to 2065	980	D

*Note: Equivalent passenger cars/hour adjusted by factors outlined in the text.

**Note: Using procedures outlined in "1985 Highway Capacity Manual".

## Accident History

Accident data for the years 1978 through 1982 are summarized in Table 4S.

## Urban Section Roadway Deficiencies

A wide variety of deficiencies and problem conditions have been identified on the existing roadway. These can be summarized as follows:

- Bridges are narrow compared to modern design standards.
- The two lane roadway, north of TH 45 in Cloquet, is insufficient to handle projected year 2006 traffic volumes.
- There has been an increase in residential and business driveways, especially in and near the northern part of Cloquet. Turning movements into and out of these driveways has increased traffic congestion on TH 33.

## SUMMARY OF NEED

Physical deterioration and design deficiencies of existing TH 33, coupled with undesirable accident rates, establish the need for improving TH 33.

Projected traffic volumes and inadequate service levels indicate a need for a four lane facility.

A strong transportation system is important to the long-term economic development of a region, particularly in the tourism industry. To support and enhance the economic vitality of northeastern Minnesota and to complete the 20 mile gap in the expressway/freeway system between the Iron Range, the Twin Cities and points beyond, the need exists to extend a four lane facility from I-35 to TH 53. TH 33 in the Urban Section of Cloquet is the last gap in this system.

TABLE 4S  
 ACCIDENT RATES FOR TH 33 COMPARED TO STATEWIDE AVERAGES

LOCATION	ACCIDENT RATE	STATEWIDE AVERAGE RATE FOR SIMILAR ROADS
Morris Thomas Rd. to TH 45	2.6	1.9
TH 45 to I-35	5.4	3.2

# **Alternatives**

## ALTERNATIVES

### STUDY AREA

The Draft Supplemental Environmental Impact Statement is only concerned with the Urban Section of the TH 33, Cloquet to Independence, project. The Urban Section study area is defined as I-35 on the south and the Morris Thomas Road on the north. The east and west limits of the study area were set at approximately two miles either side of existing TH 33, the maximum outer distance that a bypass of Cloquet would be practical (See Figure 2S).

The FHWA determined that the logical termini for this project was I-35 in the south and TH 53 in the north (Figure 1S). Since the northerly 13.2 miles has already been approved and is currently under construction as a four lane expressway, an intermediate terminus was needed. The project was divided into a Rural Section (north) and an Urban Section (south) at the Morris Thomas Road. The Morris Thomas Road was selected because selection of an alternative north of this road did not preclude selection of any alternative in the southern Urban Section.

### NO BUILD ALTERNATIVE

The No Build Alternative excludes the construction of a new four lane highway, however it does include needed improvement projects to the existing highway.

One such project is already complete and another is scheduled for 1987 letting. The completed project involves the construction of a frontage road system adjacent to TH 33 in the southern business area of Cloquet, south of TH 45. The scheduled project involves the reconstruction of the TH 33 and TH 45 intersection.

Another action that would be required with the No Build Alternative and with either of the Bypass Alternatives would be the replacement or rehabilitation of the bridges over the St. Louis River and the side channel. The bridge over the side channel can be rehabilitated and widened, however the design of the St.

Louis River bridge precludes widening and this bridge must be replaced.

#### BUILD ALTERNATIVES

Construction of the build alternative will result in a four lane expressway that would connect with the existing interchange at I-35 and with the 4 lane currently under construction north of Morris Thomas road. Three primary location alternatives were analyzed (See Figure 3S).

#### West Cloquet Bypass

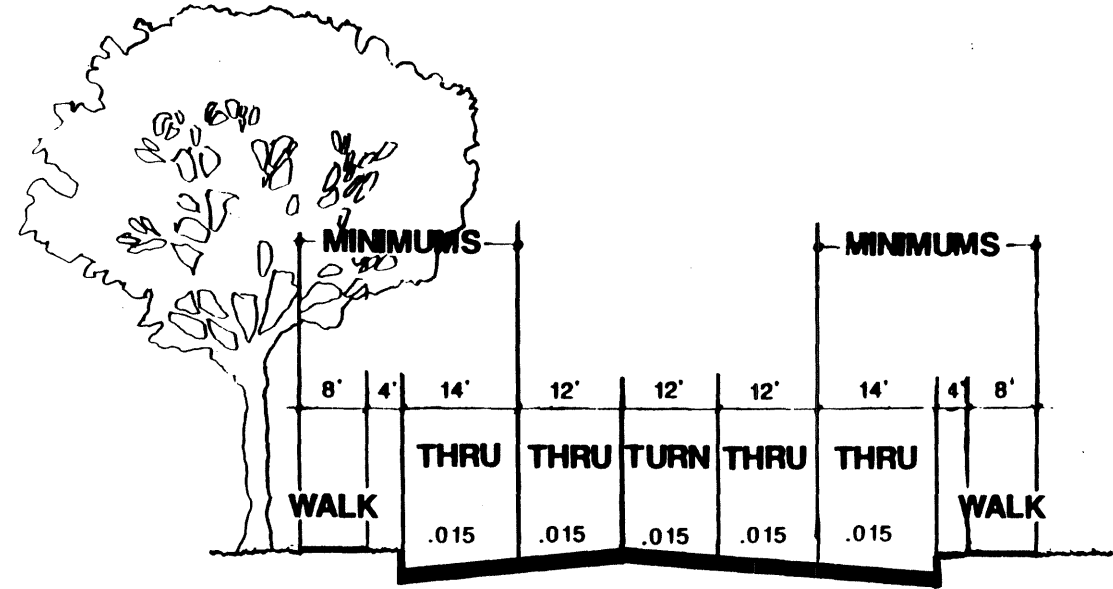
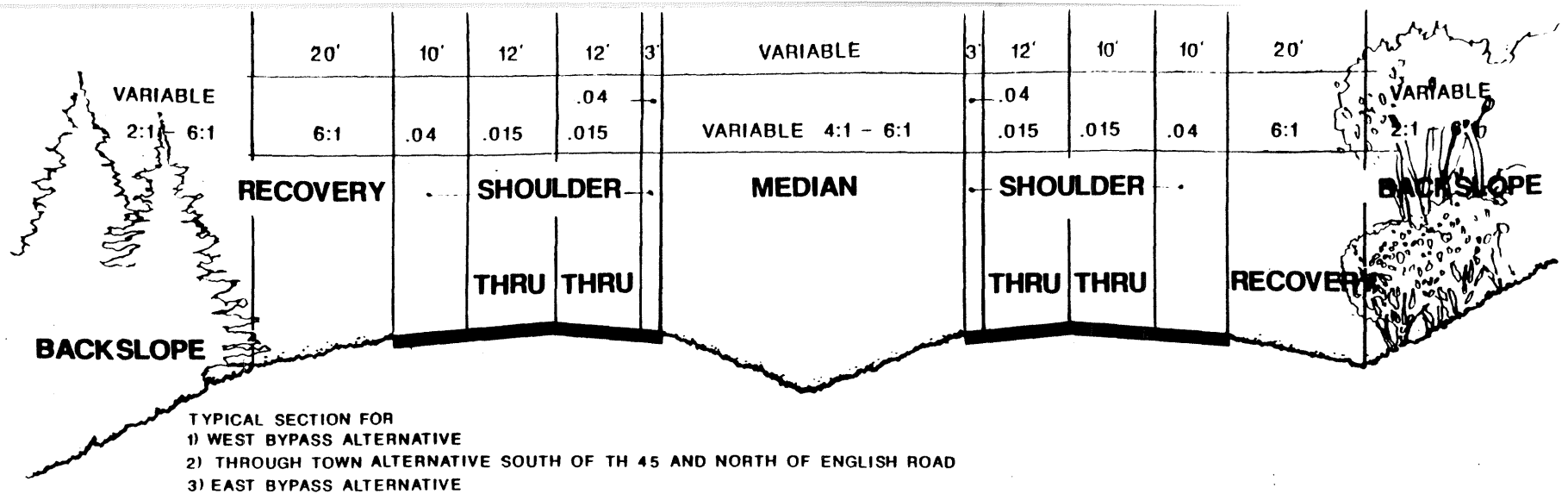
The West Cloquet Bypass begins at the junction of TH 33 and I-35, circles approximately 0.75 miles to the west of existing TH 33, crosses the St. Louis River and rejoins existing TH 33 approximately 1 mile south of Morris Thomas Road. This alternative passes through the Fond du Lac Indian Reservation.

#### Through Town Alternative

The Through Town Alternative coincides with existing TH 33 from the junction with I-35 to the Morris Thomas Road. There are bridges crossing the St. Louis River and a side channel just north of TH 45. While the southern terminus of this project is I-35, a four lane expressway already exists between I-35 and TH 45. No additional construction, other than the already completed frontage road and safety improvements, would be proposed south of TH 45. North of TH 45, the existing roadbed would be reconstructed to a four lane roadway with a continuous center left turn lane north of the St. Louis River bridge to beyond North Avenue. Refer to Figure 5S for the typical section. The road would then transition to a four lane divided expressway. Right-of-way limits are approximately 100 feet for the reconstructed urban roadway and 200 feet for the divided expressway.

#### East Cloquet Bypass

The East Cloquet Bypass begins at the junction of I-35 and TH 45 Scanlon approximately one and one half miles east of in place TH 33. This corridor proceeds north through Scanlon, crosses the St. Louis River, angles across the north corporate limits of Cloquet and rejoins existing TH 33 just south of the Morris Thomas Road. This alternative involves



TYPICAL SECTION FOR  
 THROUGHTOWN ALTERNATIVE NORTH OF TH 45 AND SOUTH OF ENGLISH ROAD

Figure 5 S: TYPICAL SECTION



the construction of a four lane  
expressway on new alignment with an  
approximate right-of-way width of 200  
feet. Refer to Figure 5S for the typical  
section of this design.



**Affected  
Environment**

## AFFECTED ENVIRONMENT

### INTRODUCTION

This section summarizes the social, economic and natural environmental setting of the TH 33 urban section study area. The Affected Environment section of the TH 33 FEIS remains valid. No new information is presented in this section of this supplement.

### NATURAL ENVIRONMENT

The urban section of the TH 33 study area is located upon a relatively flat glacial outwash plain. The major topographic features are the St. Louis River Valley, running from the northwest to the southeast through the study area, and the Cloquet Esker, a long sinuous ridge of sand and gravel deposited by glacial action. This esker is located between the West Bypass and the Through Town alternatives and south of the St. Louis River. The soils are predominantly sandy with numerous interspersed wetlands vegetated primarily with alder or spruce.

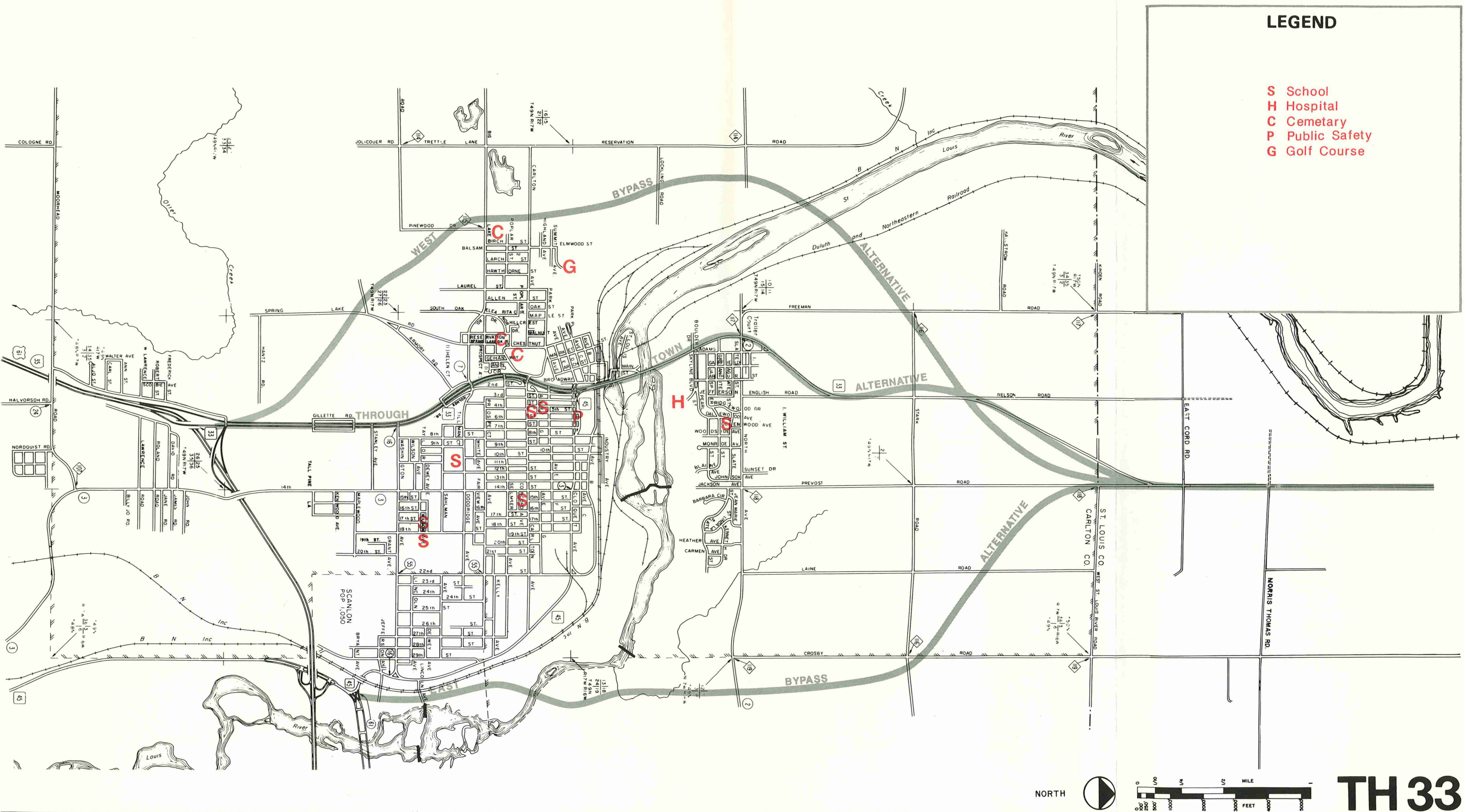
The major water resource is the St. Louis River which flows toward the southeast. Several small streams drain the area, eventually flowing into the St. Louis River. These are the headwaters of a designated trout stream, Big Otter Creek, near the southern end of the West Bypass alternative and an unnamed creek north of the St. Louis River along the East Bypass alternative. Glacial sediments in the area also contain a significant supply of groundwater at variable depths.

### SOCIAL AND ECONOMIC ENVIRONMENT

The City of Cloquet (pop. 11,142) covers most of the Urban Section study area. The local economy is dominated by the forest products industry with Cloquet providing many of the support and community services (Figure 6S). The City of Scanlon (pop. 1050) is located in the southeast corner of the study area. The Fond Du Lac Indian Reservation occupies the western part of the study area, immediately adjacent to the west city limits of Cloquet. Refer to Figure 7S for these political boundaries.



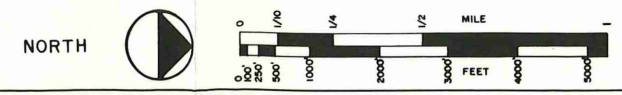
**Environmental  
Consequences**



**LEGEND**

- S School
- H Hospital
- C Cemetary
- P Public Safety
- G Golf Course

**Figure 6s: COMMUNITY SERVICES**







Supplemental EIS

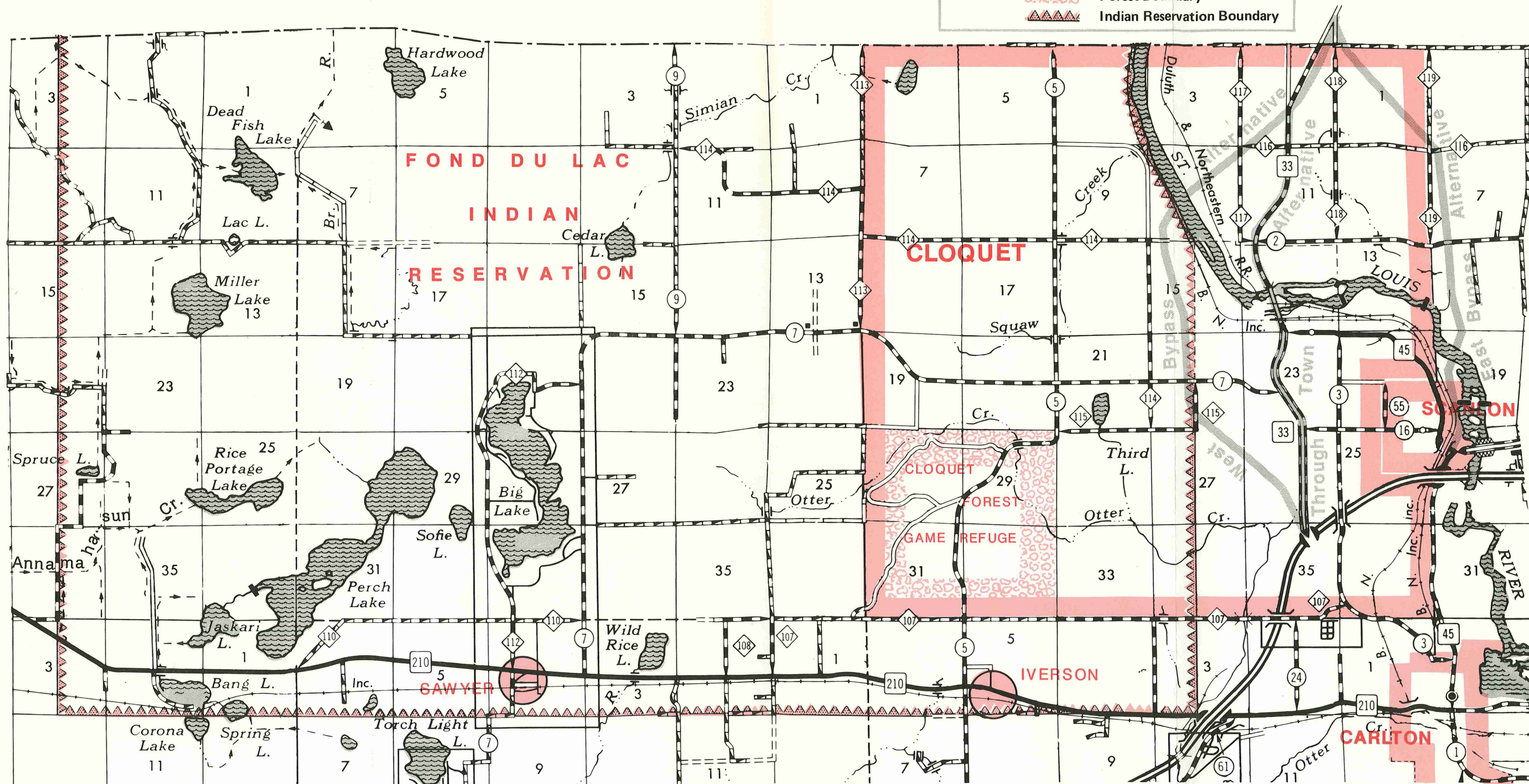
**TH 33**

Urban Section

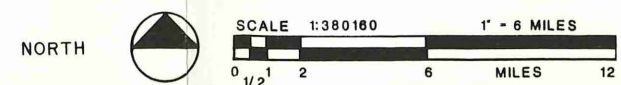


**LEGEND**

-  T.H. 33 Alternative Routes
-  Municipal Boundaries
-  Forest Boundary
-  Indian Reservation Boundary



**Figure 7s: POLITICAL BOUNDARIES**



**TH 33**



## ENVIRONMENTAL CONSEQUENCES

### INTRODUCTION

This section presents a description of potential social, economic, and environmental impacts resulting from the proposed TH 33 project. Impacts of three build alternatives, and the No Build alternative are evaluated based upon alignments drawn for each of the build alternates. Where appropriate, potential mitigation measures for adverse impacts are also discussed.

### TRAFFIC IMPACTS

A traffic analysis estimating current and predicting future average daily traffic (ADT) volumes was prepared for each of the three build alternatives. For purposed of this study the traffic estimates for the Through Town and No Build alternatives stays on existing alignment. These results are presented in Table 5S. This analysis shows that even if a bypass is built, a substantial number of vehicles will still use present TH 33 due to the number of businesses, services, and residences located along it. The Table below shows present and projected traffic volumes for the various alternatives. Also shown is the number of vehicles that will remain on present TH 33 with the east and west bypasses.

TABLE 5S  
PRESENT AND PROJECTED TRAFFIC VOLUMES

Location	1984 ADT	2006 ADT
-----		
Thru-Town Corridor		
~~~~~		
North of TH 45	9000	14450
South of TH 45	10300	24390
North of I-35	6300	10700

East Bypass *		
~~~~~		
North of TH 45	N/A	3300
South of TH 45	N/A	12640
North of I-35	N/A	12640
-----		
West Bypass **		
~~~~~		
South of Morris-Thomas Road	N/A	9830
North of Present TH 33 Inter.	N/A	4900
North of I-35	N/A	10690

* 7300 ADT will remain on present TH 33 with this alternative

** 5540 ADT will remain on present TH 33 with this corridor

SOCIAL IMPACTS

A. Community Cohesion

1. Introduction A major transportation facility can have an effect upon community or neighborhood cohesion. A freeway and to a lesser extent an expressway in a new urban location may divide a community, making it more difficult to move from one neighborhood to another, which in turn makes it more difficult to easily visit friends or relatives. These effects can be particularly notable upon those who have some sort of mobility impairment, such as some elderly, and children. Church, shopping areas, playmates and schools may be more difficult to reach. In addition, a facility traveling through a new neighborhood may increase the danger from automobiles, or introduce unwanted traffic noise into the neighborhood. A highway may also come to serve as a dividing line, serving to

informally define the boundaries of a community or a neighborhood within a community.

2. Through-Town

A new highway on the through town route would be expected to exert minimal effects upon community or neighborhood cohesion. The highway in its current location runs essentially through the middle of the city. Adjacent landowners, businesses and residents alike, have voluntarily located near the road, and have become accustomed to its presence. The through town corridor would result in the highway remaining on its present location and no existing residential area would be divided or isolated by the highway. The wider facility may result in higher traffic speeds, particularly north of the river, and make it more difficult for non-motorists to cross than is currently the case.

3. West Bypass

A west bypass would be expected to exert some adverse effect upon community cohesion. Land use immediately north of I-35 and south of Big Lake Road has some very low density residential uses, and any effects would be minor. The same is true for the area from north of the river, to the point where a bypass would rejoin existing highway 33. However, land use in the general area traversed by a west bypass north of Big Lake Road is low density residential, i.e. single family homes, and rural residential. Some commercial uses are present, generally along Big Lake Road.

A four-lane divided facility could exert a psychological barrier effect between the residents located west of the facility and the remainder of the community on the east side of the highway. Travel to such destinations as friends, church, recreation or shopping could necessitate crossing the highway. For anyone with a mobility impairment, or non-drivers, this travel could be more difficult than is the present case.

The highway in this location, for part of its length, would be located on the Fond du Lac Indian Reservation. Over time a highway in this location may come to be

informally identified as the east boundary of the reservation, even though the legal boundary will be unchanged.

4. East Bypass

An east bypass would not cause significant adverse effects to community cohesion. It would traverse areas which are primarily either undeveloped or developed as agricultural uses or rural residential, particularly north of the river. South of the river, the east corridor would be located adjacent to the river. In Scanlon, at the intersection of TH 45 and CSAH 61, a number of commercial operations are located, including gasoline service stations and restaurants.

5. Other

Either of the bypass alternatives will attract some of the through traffic currently carried on TH 33. Traffic projections are that a west bypass would carry approximately 4,900 ADT, and that an east bypass would carry approximately 3,300 ADT. This would have the positive effect of removing some through traffic from the "built-up" part of the community. The rerouting of this traffic would make it easier for many residents to travel between points within Cloquet, not having to cross a major highway to reach shopping or other destinations. However, 7,300 and 5,540 vehicles per day are projected to travel on in-place TH 33 if an east or west bypass is constructed. Refer to Table 5S.

B. Travel Patterns/
Accessibility

Construction of any of the build alternatives will not significantly affect accessibility, although either of the bypass alternatives will exert some effect upon travel patterns.

1. Through-Town

Construction of the through town alternative will result in both accessibility and travel patterns remaining the same as the current condition. The improvement of the section of TH 33 lying north of the TH33/TH45 intersection will result in improved accessibility into downtown Cloquet from any northerly location, and will also result in improvements to the provision of emergency services to

northerly locations.

2. Bypass
Alternatives

The construction of either of the bypass alternatives will result in virtually unchanged accessibility to Cloquet, but will result in changed travel patterns. Some motorists will choose to travel around Cloquet on a new bypass. Mn/DOT traffic studies indicate that many will still travel through Cloquet to obtain needed items or services (Table 5S). Travelers whose destinations are within the corporate limits of Cloquet will be able to reach those destinations using current routes, and will have less traffic conflicts to deal with as a result of the bypass. Refer to the "Bypass Effects" section in the Economic Impacts section for a more complete discussion of the effects of bypasses.

C. Community
Facilities

Community facilities are depicted on Figure (6S)

1. Schools

None of the alternatives are anticipated to be associated with adverse effects upon school district facilities or operations.

A possible effect from relocation is the potential movement of displaced residents from the the school district. The relocation estimates are found on pg.44 Table 7S. Relocation effects could translate into a loss by the Cloquet school system of a maximum of 13 students and associated losses of state aid. These potential effects are found in Table (6S), below.

TABLE 6S
POTENTIAL IMPACTS TO SCHOOL DISTRICT

ITEM	ALTERNATIVE		
	East Bypass	Through Town	West Bypass
Residential Displacements	16	23	10
Mean Persons per Housing Unit (Cloquet) ¹	2.7		
Estimate of Persons Displaced	43	62	27
Percent of Population Aged 5-17 (Cloquet) ¹	21.7		
Estimate of School Children Displaced	9	13	6
District Enrollment 1984-85 ²	2,295		
Foundation Aid Received 1984-85 ³	\$3,399,251		
Foundation Aid Per Student ²	\$1,481		
Estimated Maximum Loss of Foundation Aid	\$13,329	\$19,253	\$8,886
Maximum Loss as Percent of Foundation Aid	0.4%	0.6%	0.3%

¹1980 Census of Population

²Minnesota Department of Education. Number reflects headcount, not pupil unit

³Estimate, Minnesota Department of Education. Each district receives a variety of state aids. Foundation aid is most sensitive to enrollment.

These figures represent analysis based on a worst case assumption, which is that all displaced residents would leave the region. If this were the case, the Cloquet school system may lose as many as 13 school aged children in any one year, if the through town alternative is selected. Table 6S also indicates the amount of aid which could be lost if each displaced student left the district, and the district lost the full dollar amount of foundation aid it had received on a per student basis. This could

potentially amount to \$19,000, which represents slightly more than one-half of one percent of foundation aid received. Again, this is a worst case analysis, which overstates the impacts which are actually likely to take place.

Elementary school children who live north of the river and west of existing TH 33 now must cross that highway to reach school. At present none of these children must cross TH 33 on foot, but are bused. Both pick-up and drop-off are on the west side of the highway. Some of these children, and others cross the highway to reach play areas, or for other reasons. The addition of two additional travel lanes, a continuous left turn lane through this section, and no provision for a median section, will result in an increased distance for such children to cross.

There has been some discussion, of a very tentative nature, of the possibility of locating an additional Minnesota community college in the Cloquet area, perhaps within the borders of the Fond du Lac Indian Reservation. Tentative plans would be for such a facility to be located within the boundaries of the Reservation, on or near the University of Minnesota Forestry Station. Funding would be provided by the State of Minnesota, the Bureau of Indian Affairs. Such a facility would be well served by either a west bypass or the through town route. An east bypass would not provide good service to a community college in this location.

2. Recreation Areas The project alternatives could adversely impact a number of parks/ recreation areas. This issue is discussed more fully in the "Section 4(f)" evaluation section of this supplement.
3. Churches None of the project alternatives will cause adverse impacts to any church facility.
4. Public Safety/
Emergency
Service Construction of the Through-Town Alternative would have the most beneficial effect upon emergency service provision. The location of the Public

Safety Building is near the current intersection of TH 33 and TH 45. Access to a westerly bypass would be sufficiently distant from this location that it would not generally be used for emergency vehicle movement. An easterly bypass would be even more distant and correspondingly less likely to be used. The Through-Town Alternative would provide the best facility for movement of emergency vehicles north of TH 45. Since TH 33 is already upgraded south of this intersection, movement south of the TH33/TH45 intersection would not be significantly affected by any of the project alternatives, although the in-city traffic reductions associated with either of the bypass alternatives would make movements within Cloquet somewhat easier. Construction of either of the bypass alternatives will reduce conflict between through and local traffic and the associated accident potential.

Access to the hospital from the north would be facilitated by construction of the Through-Town Alternative, although it would not achieve significant reductions in travel times. Access to the hospital from the south would be most beneficially impacted by construction of the Through-Town Alternative. Either bypass alternative would be located sufficiently distant from the hospital that using a bypass from the south would result in both increased distance and indirection of travel. The Through-Town Alternative would be located only a few blocks from the hospital, providing all users better access.

The Cloquet Department of Public Safety has indicated a strong preference for the highway to be upgraded within the existing corridor. Their professional judgment is that this provides the best facility to efficiently provide emergency services throughout their service area.

D. Special Group Impacts

1. Aged

No undue adverse impact is anticipated to be found among the elderly population of the project area.

2. Non-Drivers

Pedestrians or bicyclists who wish to travel from one side of TH 33 to the other on the south side of the river now must cross a four lane highway. This travel is facilitated by the presence of traffic signals at Doddridge/Big Lake Road, at a second location at Carlton Avenue and Pinehurst Park, and at the intersection of TH 33 and TH 45. A median, which can provide pedestrian refuge, is also present south of Doddridge. Construction within either of the bypass corridors would reduce traffic on existing TH 33, and result in generally easier east-west pedestrian movements. Construction on a through town corridor will increase the number of travel lanes north of the river. In order to provide for safe pedestrian crossing in this area, appropriate pedestrian protective devices will be studied during the design phase of the project, and will include coordination with appropriate City of Cloquet staff. Refer to the Bicycle/Pedestrian Considerations section for additional information.

3. Minorities

The proportion of the population of Cloquet which is minority is very small. The 1980 Census enumerated more than 95% of the population as White. As a result, the direct impacts to a minority population would normally be expected to be minor. However, the project and the community are located adjacent to and within the Fond du Lac Indian Reservation. The Reservation Business Committee, the governing body of the reservation, has indicated a preference for the highway to be located within a westerly corridor. This corridor would be located for part of its distance within the reservation itself. The Reservation Business Committee feels that this location would benefit the Reservation by increasing opportunities for economic development on the reservation. Construction within the existing corridor would result in traffic remaining in that corridor, and resulting development opportunities on the reservation would remain as they are. Currently, the reservation is located sufficiently far from existing TH 33 that distance and

topography limit visibility from the highway, and exert a dampening effect upon the type of development which could appeal to the tourist or transient motorist.

E. Relocation

The Relocation Assistance discussion is unchanged from the original EIS and will not be repeated here. The relocation impacts presented here are similar to those described in the original EIS, but more precise.

The project alternatives will cause displacements as indicated in Table 8S.

TABLE 7S
RELOCATION IMPACTS OF TH 33 ALTERNATIVES

ALTERNATIVE	NUMBER OF DISPLACEMENTS	
	Residential	Commercial
West Bypass	16	0
Through Town	23	1 ^a
East Bypass	10	2 ^b

^a auto salvage+e

^b Petroleum Bulk Facility, Utility Transformer Station

The homes potentially displaced by project construction are typical of homes in the Cloquet area. Within the west bypass corridor, one home was observed which had a handicap ramp. Should the west corridor be selected and this home acquired, special care will be taken to insure that the displaced resident is relocated in a home which meets any special need. No other homes were observed which would indicate that any unique problems or undue difficulty would be incurred in finding suitable replacement housing for those who would be displaced by any of the project alternatives.

The review of available housing conducted for the original EIS found that more than three hundred homes were for sale in the Cloquet area, far in excess of that which would be required to provide adequate replacement housing for all persons

displaced by project construction. A similar situation still exists. An updated survey, conducted in September, 1986, found more than 300 homes for sale. This number far exceeds the number which which may be required to provide all displaced residents with a decent, safe, sanitary and otherwise suitable replacement dwelling, suited to their needs and within an acceptable price range.

The price range for homes for sale during the September review ranged from less than \$10,000 to more than \$100,000. The homes were well distributed between the urban and rural area. The typical home for sale had three bedrooms, followed by two bedroom homes.

It is not anticipated that the relocation required by this project will exert a significant disruptive effect on the community.

In addition to the displacements caused by the build alternatives, a number of other parcels of property will be acquired. These consist either of partial acquisitions, where only a portion of the property will be acquired, or where an entire parcel to be acquired is undeveloped. These are found generally in the sections of either of the bypass alternatives where they traverse land which is rural in character.

F. Community Preference

During the study and analysis of the proposed action, two different viewpoints have emerged regarding which of the alternatives should emerge as the preferred alternative.

The first viewpoint is that a bypass, particularly a westerly bypass, is the best overall choice for a preferred alternative. This location, it is felt, is the best choice for a transportation improvement in and near Cloquet. This is also thought to present opportunities for significant economic development on the Fond du Lac Indian Reservation, and subsequently increased employment opportunities.

The second viewpoint is that the through town route should be designated as the preferred alternative. Constituents of this alternative include the Cloquet City Council, the Cloquet Mayor, The Director of Planning and Zoning for Cloquet, the Director of Cloquet Public Safety, and others. The Cloquet Area Chamber of Commerce has also strongly supported a through town alternative, first articulating this position in 1983, and most recently by letter dated October 23, 1986. The Cloquet Development and Industrial Corporation, Inc., has also argued in favor of a through town alternative by letter dated October 14, 1986. (Letters Attached) Proponents of a through town alternative have set forth a number of reasons which they feel establish a case for designating the through town alternative as the preferred. These include:

One

Public Safety: The Director of the Cloquet Department of Public Safety has pointed out that the location of the public safety facilities is such that construction in either bypass corridor would not provide benefits. Their location, very near the intersection of TH 33 and TH 45, suggests that police, fire, and ambulance service would be enhanced by construction in the current corridor. Also, the entrance to the hospital is near the current location of TH 33, and either bypass corridor would be located far from this facility.

Two

Community Planning/Zoning: City Plans for the area of either bypass alternative do not presently include the type of commercial/industrial development which could follow highway construction in either bypass corridor. Such development could possibly require the extension of public utilities, notably water and sewer, to areas which are currently not served. The Cloquet Planning Director has strongly urged construction in the through town corridor, by letter dated September 12, 1986. This also points out that plans for Dunlap Island development

anticipate the highway remaining in the present corridor.

Three

Business Organizations: A large number of businesses have located along the current corridor of TH 33 because of the access and exposure which proximity to this highway provides. As indicated above, The Cloquet Area Chamber of Commerce and the Cloquet Development and Industrial Corporation, as well as a large number of individual business owner/operators, have indicated that construction of a bypass would exert a substantial adverse impact on businesses located adjacent to and near TH 33.

ECONOMIC IMPACTS

Major transportation improvements may sometimes exert a significant effect upon the local or regional economy. They may reduce costs to road users, increase the competitive advantage of local industries, open new areas to residential or commercial development, or in other ways exert a significant economic effect.

An issue of concern to local residents is the effect which a bypass may exert upon the local economy, particularly the retail sector of the economy. Operators of retail businesses are concerned over how variations in traffic volume passing by their places of business will effect revenues. An econometric model which could be employed to predict a specific effect to a specific business, or type of business, does not exist. As a result, the ensuing discussion is more qualitative. This issue requires some background discussion.

A. Bypass Impacts

The construction of a highway bypass of a community can be expected to exert some adverse impact upon certain types of businesses located along the "old" highway. Businesses which are oriented toward the traveling public, and sell services or goods to that public, are to some degree dependent upon transient motorists. While not all businesses are traffic dependent, many which have chosen highway locations are. Examples of such businesses include automobile service stations, motels, certain types of

restaurants, and convenience stores. As the practice of constructing community bypass loops around cities and towns grew during the 1950's and early 1960's, a concern was frequently expressed that such actions would cause the economic stagnation of the bypassed town or city. In response to this concern, the federal government, in cooperation with many state highway departments across the country, studied the effects of bypasses on existing communities. Several such studies were conducted in Minnesota. The major findings of these studies are very consistent.

A major conclusion of these studies is that the most dire predictions do not come to pass. Experience with bypasses over the past decades does not support the fear of community social or economic decline. Bypass study findings have so far failed to reveal any direct or consistent relationship between general business activity, aggregated at the city or county level, and variations in traffic volume in bypassed areas. For the community as a whole, a bypass does not exert a significant economic effect.

Even though the overall effect when analyzed at the community level may be negligible, individual businesses within the community may be adversely impacted. Businesses catering to the needs of transient motorists, or serving a non-local clientele, may be seriously impacted. An early (1960's) analysis of more than twenty bypass studies conducted for the Federal Highway Administration, concluded that retail establishments catering primarily to motorists were most likely to be adversely affected. That general finding has not changed to this date. Examples of such "traffic sensitive" establishments were the lodging industry, automobile service stations, retail food outlets, convenience shops, etc. It was found that some businesses (e.g. service stations, restaurants) could regain some of this lost share through various marketing or merchandising techniques; specializing in particular goods or services, etc. Other businesses, e.g.

motels, could not as easily change to fit the changed marketplace, and could be even more seriously affected. Businesses serving the needs of local residents, or marketing goods or services for which high traffic volume is not important, were not found to be impacted.

Research on this subject, from both the academic sector and the professional transportation literature, is presented and discussed in an appendix to this volume. A bibliography is provided for those interested in pursuing this topic in greater depth.

B. Business Impacts

1. Introduction

Within the area of the proposed project many businesses currently operate along and adjacent to existing TH 33. TH 33, serves as a busy commercial strip development, between I-35 and approximately the intersection with Adams on the north side of Cloquet. Residential uses are common along TH 33 between its intersection with Doddridge Ave and TH 45. Some residential uses are also found north of the intersection with Skyline Blvd. However, the character of the street through the city is determined by its commercial nature.

Between the project termini, more than fifty (54) businesses are located adjacent to TH 33, or are easily visible from it. In addition, "Lumberjack Mall" is also located adjacent to the intersection of TH 33 and Doddridge Ave/ Big Lake Road. This mall normally accommodates approximately 25 businesses.

While not all businesses along the highway are oriented to the traveling public, many are. As many as 35 businesses along TH 33, or located in the Lumberjack Mall, are of a type which has traditionally been defined as "traffic sensitive." This is more than 60% of the businesses located along TH 33 within the City.

For reasons indicated elsewhere in this document, (see Appendix) Mn/DOT will not attempt to project a specific revenue

effect to particular businesses. However, many of these businesses will experience reduced customer contact as a result of any bypass construction, which will in turn translate into reduced revenue. The amount of such a reduction will depend on the degree to which each business is dependent on attracting the transient motoring public. In addition, there would be a "ripple" effect, where the sales dollars lost would not circulate throughout the Cloquet area economy. The Cloquet Area of Commerce and the Cloquet Development and Industrial Corp have both formally indicated a strong preference for the highway to remain in the existing corridor. Their letters are attached to this Supplemental DEIS. In addition, many letters from the owners or operators of individual businesses in Cloquet have been received expressing support for the through town alternative.

2. Through Town

Construction within the existing corridor will cause traffic to remain within that corridor. Many of the businesses along TH 33 have chosen to locate along this highway to take advantage of the business opportunity provided by this motor traffic, including summer tourist traffic. Those businesses oriented to transient traffic will benefit from the selection of this corridor, by having potential customers continue to pass near their places of business.

3. Bypasses/
Alternatives

Of the more than fifty businesses located along TH 33, approximately thirty-five are those which traditionally have been defined as "traffic sensitive." This includes 13 restaurants, including several so-called "fast food" establishments. There are also six automobile service stations and three motels.

Selection of either bypass alternative as a preferred alternative will alter the travel patterns of many motorists whose origins and destinations lie outside Cloquet, including summer tourist traffic. A west bypass is anticipated to attract an annual average daily traffic of approximately 5000 vehicles. Adverse

impact should be anticipated to businesses located along existing TH 33 which are oriented to the traveling public, e.g. service stations, convenience food outlets, motels.

The selection of either bypass alternative will also present development opportunities along the route of the new highway. Some commercial development will take place along the routes of any bypass. A portion of the business revenue generated at these newly developed sites will have been captured from businesses located along the existing corridor. It is also possible that some of this development would be genuinely new, and not simply relocated from locations adjacent to the current route of TH 33. The Fond du Lac Reservation Business Committee has indicated they have tentative plans to develop certain parcels of land into commercial uses if the west bypass is identified as a preferred alternative. Definitive plans have not been developed to this date.

C. TAX REVENUE

Property acquired for highway right of way is permanently removed from the rolls of the taxing district in which it is located. This may result in a temporary increase in the tax on remaining real property in the taxing district. If all or most of the displaced residents and businesses choose to leave the region, such an increase could become permanent. Experience indicates that most property owners relocate within the same general area. This will normally result in any property tax impact being non significant. A expressway facility on new alignment will likely result in the development of adjacent property to a higher and better use. In such an eventuality, the marginal tax revenues associated with such development may equal or exceed the reductions associated with right of way acquisition.

1. Through Town Alternative

A through town alternative will generally cause the least amount of right of way acquisition, measured in acres. However, property on a through town alignment is usually more densely developed and is of

higher value than bypass alternatives. A result is that a through town alternative is usually the most costly, both in terms of right of way acquisition costs, and tax impacts. In the case at hand, the through town alternative will cause more residential relocation than either of the bypass alternatives, and will be the more costly of the alternatives in right of way acquisition costs.

2. Bypass
Alternatives

At this stage of project development it is not possible to precisely estimate the fiscal impacts associated with the acquisition of right of way. Much of the property which would be acquired in association with either of the bypass alternatives would be of the "partial take" variety, where only a portion of the particular property would be acquired. In such a case, the valuation of the remaining real property must be determined by the appropriate county or city assessor.

The west bypass would be located in an area where residential land use is common, particularly south of the proposed river crossing. The west bypass is anticipated to cause the displacement of as many as sixteen residences, but no commercial operations. As a result, both right of way costs and fiscal impacts should be anticipated to be higher than those of the east bypass, which travels through less developed property, and is anticipated to cause ten residential and two commercial acquisitions.

D. Tax on Indian
Lands

During the course of the investigation for this EIS, the question arose whether local government can levy tax upon real property located within the boundaries of an Indian reservation, see Figure 6-S.

The basic concern which spurred this question is whether the City of Cloquet, or Carlton County, would have authority to levy tax upon any property along the route of a bypass which would be developed to a higher and better use, if the development were located on the Indian reservation. Like many of the questions which surround this particular project, the answer is not clear.

It is generally established that land within an Indian Reservation and owned by or for Indians is not subject to tax by local units of government.

As a general rule, it is clear that government does not have the authority to tax land within the reservation which is owned by the U.S. Government unless it has specifically been granted that right by the U.S. Government. It is also true that local government does not have the right to tax land owned by an Indian within the Indian reservation. Land owned by the tribal organization or held in trust by the U.S. Government for the tribe would be similarly nontaxable. Local government can tax land within a reservation which is owned by non-Indians. The proposed alignment of a westerly bypass of Cloquet would pass through the boundaries of the Indian reservation. However, land ownership within this corridor and this part of the reservation is widely distributed among private individuals, both Indian and non-Indian. See Figure 8-S.

This issue is further clouded by the fact that the specific location of any subsequent development is unknown. As we have indicated earlier in this document, Mn/DOT is not aware of any specific and detailed development plans which are contingent upon the construction of any of the alternatives described in this EIS. Absent such plans, discussion on this issue must be highly speculative. All that can be said at this point is that if development were to take place on land owned by non-Indians within the boundaries of the reservation, such development would be fully taxable by whatever taxing districts in which the development were located. However, if such development were to take place on tribal land, land owned by Indians, or held in trust by the U.S. Government for the Indian tribe, that development would not be taxable.

E. Public Expenditures

1. Through Town The only change in public expenditures

associated with the through town alternative is that resulting from the maintenance of any new traffic lanes which are constructed, i.e. plowing, sanding, mowing, etc. The cost of such items will be borne by Mn/DOT from the normal funds for these purposes. No funds will be required from any local unit of government.

2. Bypass
Alternatives

Construction of either of the bypass alternatives will cause some parts of existing TH 33 to be turned back to local control. From the point where such a bypass would leave existing TH 33 to the point where it would return, The City of Cloquet would become responsible for this facility, including maintenance and replacement of the existing bridge at such time as that would be required.

F. Development

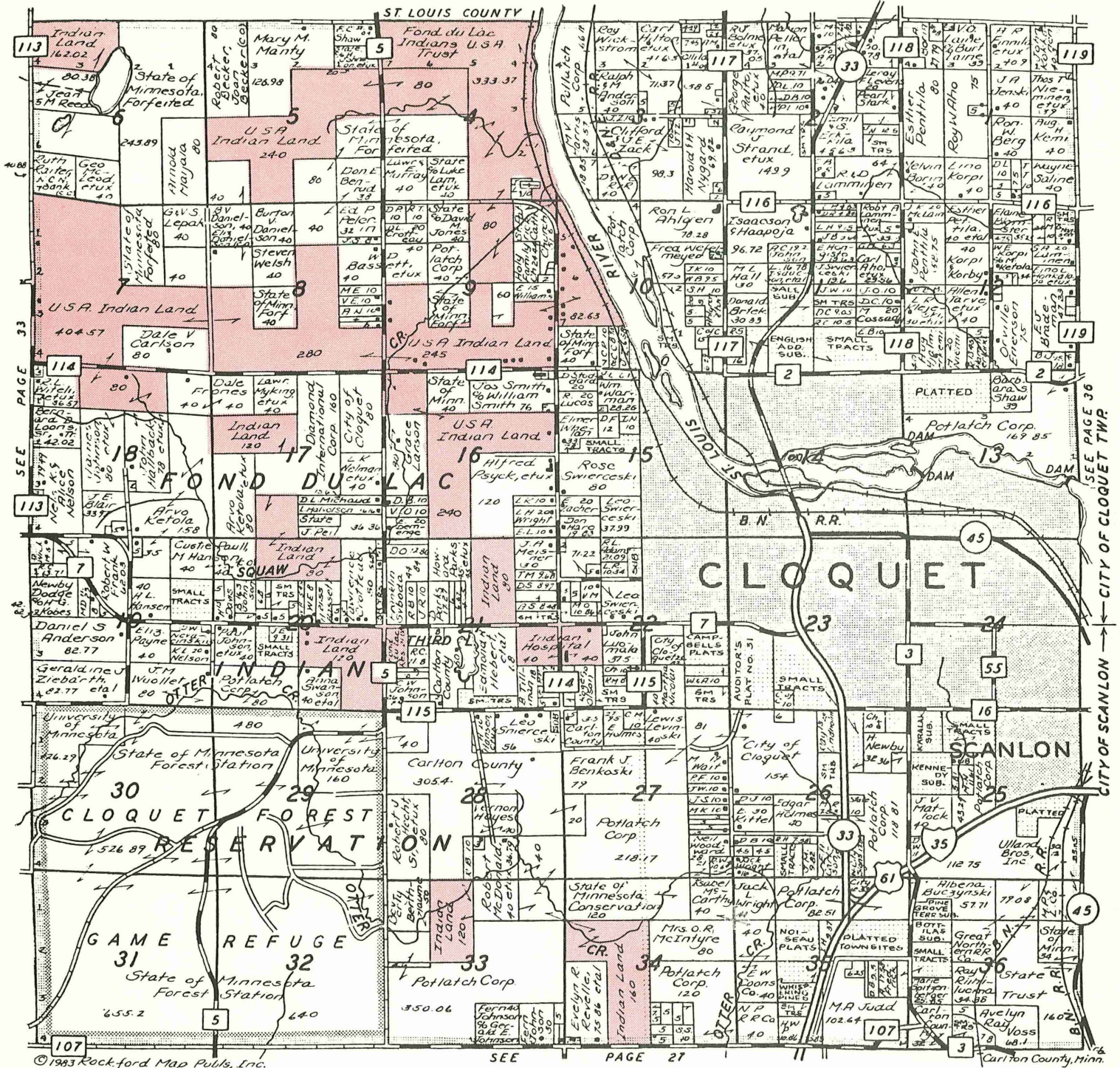
1. Through Town

Construction of the through town alternative will perpetuate existing patterns of development within Cloquet. New development can be expected to occur within this corridor. It should be expected to be incremental in nature, with infilling of commercial space taking place to meet market opportunities. Access control is not proposed to be acquired on a through town route, allowing existing commercial openings to TH 33 to continue.

2. Bypass
Alternatives

Construction of either of the bypass alternatives should be expected to cause development to take place within those corridors to meet the demand for traveler oriented goods and services. Some degree of the business transacted at these new locations will have been captured from those businesses currently located along TH 33 in Cloquet.

Within the east bypass corridor, Mn/DOT is not aware of any large scale commercial, industrial, residential or other developments planned for the area which are contingent upon highway project construction. Within the west bypass corridor, the route would travel through the limits of the Fond du Lac Indian Reservation. The Reservation Business



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SEE PAGE 27

CITY OF SCANLON SEE PAGE 36

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Land owned by or held in trust for the Fond Du Lac Reservation.

TH 33

Figure 8 s: LAND OWNERSHIP

Urban Section

Committee, the governing body of the reservation, have indicated that a highway in this location would provide opportunity for economic development, although a specific and detailed development proposal, describing the nature and type of anticipated, has not yet been developed. However, it is clear that should construction take place in the west corridor, commercial development is more likely to take place in the near future, rather than over the long term.

3. Indirect Impacts A common occurrence following the construction of a divided, limited access highway is that businesses oriented to the traveling public develop along the new highway, particularly near access points. Freeways tend to have associated development clustered near interchanges; expressways tend to have associated development in the form of a commercial strip. Discussions regarding future development are quite speculative. There does not exist a statistical model which can be used to predict the nature, location or timing of such development, or even if it will occur at all. Therefore, Mn/DOT cannot develop a precise forecast regarding the nature, location or rate of development and land use conversion should a bypass be constructed. However, such development is a historically common event along community bypass routes. For purposes of this document, it should be presumed that over the long term, land adjacent to an expressway bypass corridor would likely be converted to a commercial land use.

G. LAND USE IMPACTS

1. Introduction Construction of any of the alternatives within the project area will cause land to be converted to a transportation use. The amount of land which can be precisely predicted to be converted is the land which is directly converted as a result of right of way acquisition. Mn/DOT is not aware of any specific proposals for large scale commercial, industrial, residential or other developments planned for the area which are contingent upon highway project

construction.

2. Indirect Impacts Indirect impacts are as described above. Commercial development is an historically common event along divided highways in and near urban areas, and should be presumed to take place in the project area over the long term. Land located adjacent either of the bypass routes, especially that near access points, will likely over time be converted to a "higher and better" land use, e.g. commercial, or higher density residential, if either of the bypass alternatives are selected.

3. Current/Future Land Use Land use in the vicinity of the west bypass alternative is currently primarily low density residential, and rural residential, with single family homes being the typical dwelling unit. Some commercial uses are present, primarily along Big Lake Road. Plans for the area are for further development as low density residential. It is thought that construction of a divided four lane facility in the west corridor would foster commercial development in this general location adjacent to the highway. The City of Cloquet has indicated that these anticipated changes in land use are undesirable, and that their preference is for the construction to take place along the general alignment of existing highway 33. They have also pointed that current plans for the development of Dunlap Island include the delivery of traffic to that area.

Zoning along this route is variable. Refer to Figure 9-S. Beginning at the southerly departure point, the west bypass alternative would travel through an area zoned as highway commercial. It would then travel through Farm Residential, and into Single Family Residential and R-2. For the balance of the route, the corridor is zoned almost exclusively as Farm Residential, although it may pass near an area zoned for light industry.

The through town route would travel along the existing corridor, which is zoned highway commercial for most of the route.

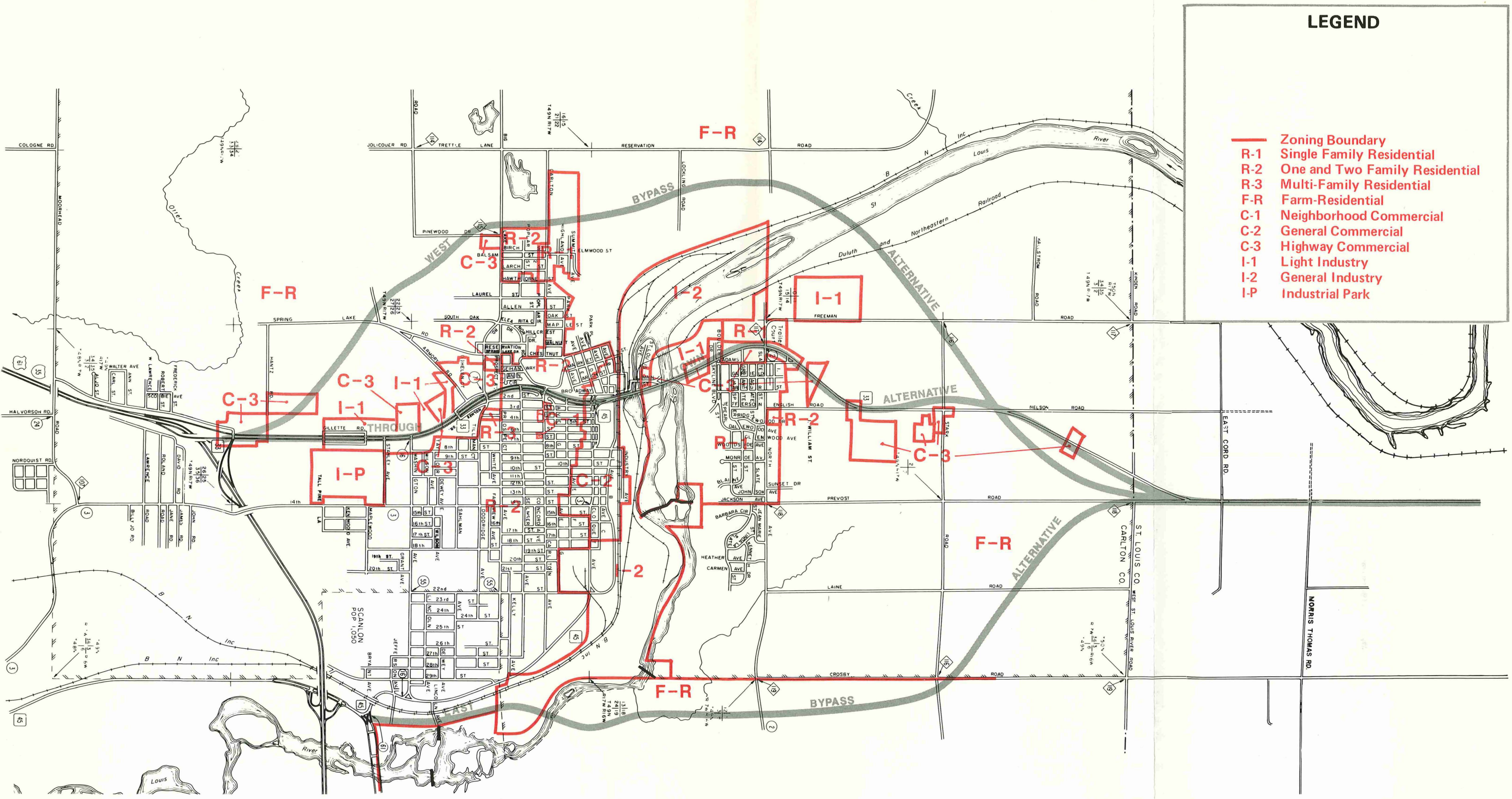
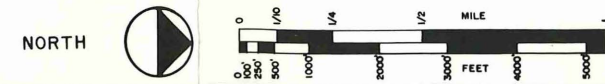


Figure 9S: ZONING



TH 33

Supplemental EIS

Urban Section

The area north of Doddridge Ave/Big Lake Road and South of TH 45 is zoned for one or two family residential. North of TH 45 the area is primarily highway commercial again, except for a small area of single family residential south of Skyline Blvd on the east side of TH 33. Some small areas zoned for industrial uses found along the highway.

Land along the route of the east bypass is primarily undeveloped, or used as rural residential, or is in some type of agricultural land use, including forestry. Beginning at the intersection of TH 61 the east bypass would travel through the City of Scanlon. The area of Scanlon through which the east bypass would pass, east of the current route of TH 45, is currently not zoned. North of the river, the route leaves the city limits of Cloquet, and traverses through rural Carlton County. Throughout this section, the zoning is for Agricultural/Residential. In the section where the bypass would turn in a northwesterly direction to rejoin the current TH 33 corridor, it would again pass through a portion of the City of Cloquet, which is zoned as Farm/Residential.

It should also be assumed that the east bypass would also foster some commercial development along that route to serve motor traffic. Such development would most likely take place north of the river.

4. Infrastructure

A map outlining the general outer limits of sewer and water provision in the area is found in Figure 10S. As indicated on that map, the area through which either of the bypass alternatives would travel is not generally served with these utilities. If development should follow the construction, as would be anticipated, this would imply that these public services would have to be extended to the new development.

4. Indian Reservation

As pointed out in the Social Impacts Section, a West Bypass, while not geographically being the Fon du Lac Indian Reservation boundary, could in

time be perceived to be the boundary. The West Bypass would isolate an approximately 100 acre segment of privately owned land from the remainder of the reservation. For all practical purposes this may have the effect of removing this land from the reservation.

AGRICULTURAL IMPACTS

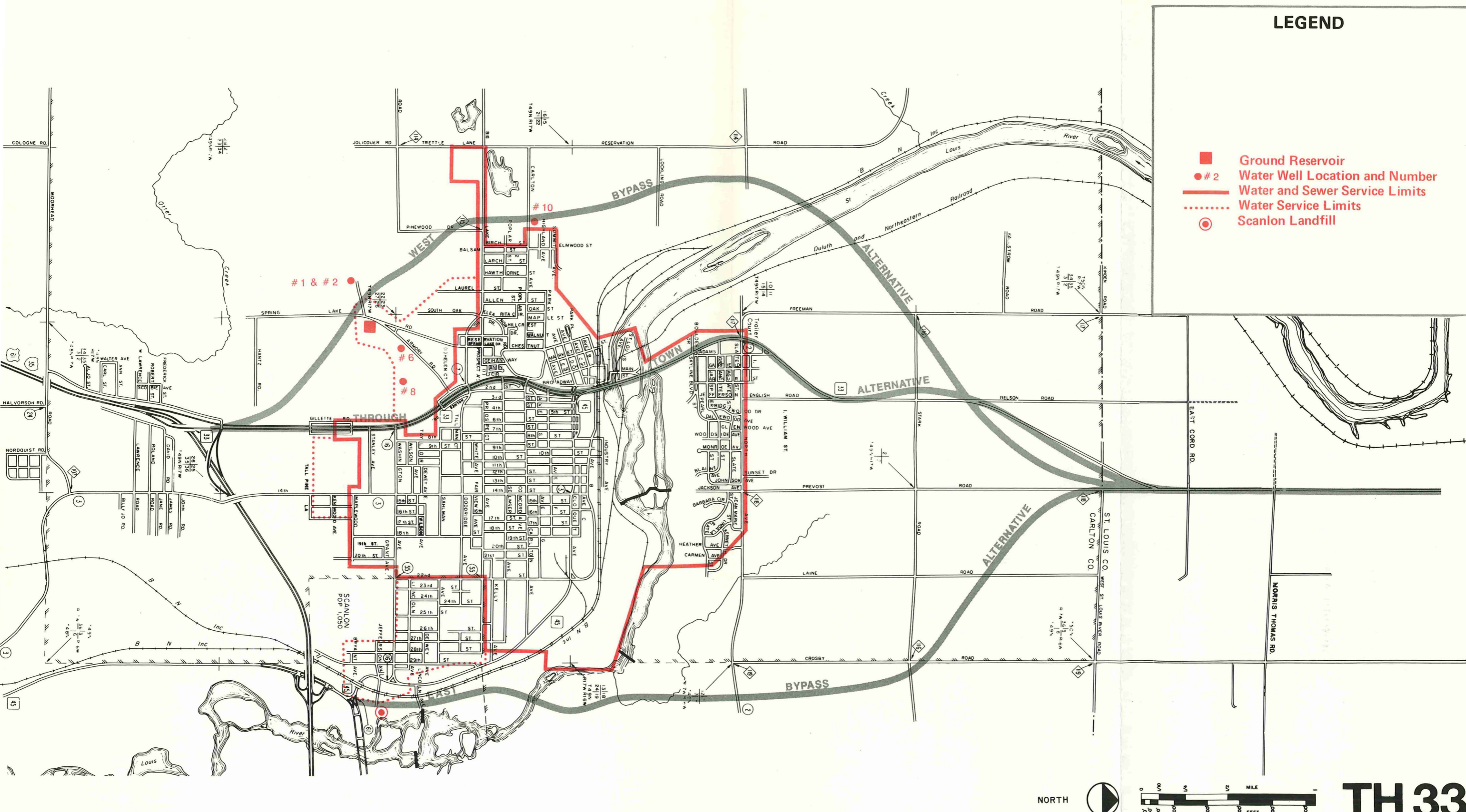
In Minnesota agricultural land includes lands currently under cultivation, grasslands, forested land and some wetlands. Much of the outlying areas of Cloquet traversed by the bypass alternatives are zoned Farm-Residential (Figure 9S). The West Bypass alternative would impact approximately 170 acres of potential agricultural land, the East Bypass alternative would impact approximately 25 acres. Few of these lands are considered Prime or Unique Farmland. Approximately 7 acres of the West Bypass alternative, 4 acres of the East Bypass alternative and 4 acres of the Through Town Alternative have soil types indicative of Prime Farmland. There is no Unique Farmland impacted by the alternatives. Refer to the Agricultural Impact Section of the FEIS (pages 95-99) for additional information.

AIR QUALITY IMPACTS

The FEIS contains the Air Quality analysis findings pertaining to the Through Town Alternative and the conclusion that "the Air Quality standards will not be violated" by the project. It also concluded that if either of the Bypass Alternatives were constructed the impact to the receptors adjacent to those routes would be less than the impacts for the Through Town Alternative. Consequently they also will not violate air quality standards.

After the FEIS was published Air Quality analysis was performed for receptors along the Bypass Alternative routes. The analysis confirmed the conclusion, in the FEIS, that if a bypass alternative were chosen the Air Quality standards would not be violated.

Table 8S shows the results of the supplemental analysis.



LEGEND

- Ground Reservoir
- #2 Water Well Location and Number
- Water and Sewer Service Limits
- ⋯ Water Service Limits
- ⊙ Scanlon Landfill

NORTH

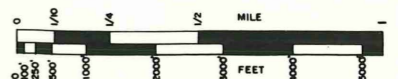


Figure 10s: SEWER & WATER

TABLE 8S
 CARBON MONOXIDE CONCENTRATIONS (Parts Per Million)
 At selected receptors along TH 33 East and West Cloquet Bypass
 Alternatives

RECEPTOR	ONE HOUR		EIGHT HOUR	
	1990	2005	1990	2005
1) Receptor 50' from roadway at intersection of West Bypass and old TH 33	10.5	9.0	6.5	5.4
2) Receptor 100' from roadway along East and West Bypasses	3.3	2.5	2.0	1.5
STANDARDS	1-HOUR		8-HOUR	
MINNESOTA	30 PPM		9 PPM	
FEDERAL	35 PPM		9 PPM	

NOISE IMPACTS

No Build

If one looks at Table 9S it is seen that with a No Build alternative the number of impacted receptors increases considerably by the year 2006. This increase is due to the expected increases in traffic volume on TH 33 by the year 2006. With the increase in traffic there is a resultant increase in noise levels along TH 33. Based on the number receptors that would exceed state and/or federal standards the No Build alternative is the least favorable.

Through Town Alternative

The Through Town alternative impacts less receptors in the future (See Table 9S) than the No Build does. This is due to the changes in the highways geometrics and location in the Through Town alternative. From a noise standpoint of the number of receptors exceeding standards the Through Town holds the line on the increase of noise impact with the natural increase in traffic volumes over time.

East and West Bypasses

The East and West Bypass alternatives are going to be discussed together. As can be seen in Table 9S the number of impacted receptors is small with both

alternatives. It should be noted that these numbers were obtained using recent maps, photos etc. If and when either Bypass alternative were built these future numbers could be larger due to the relocation of people and business near to the highway. Also neither alternative will divert enough traffic from in place TH 33 to affect the number of receptors exceeding the standards along the old route.

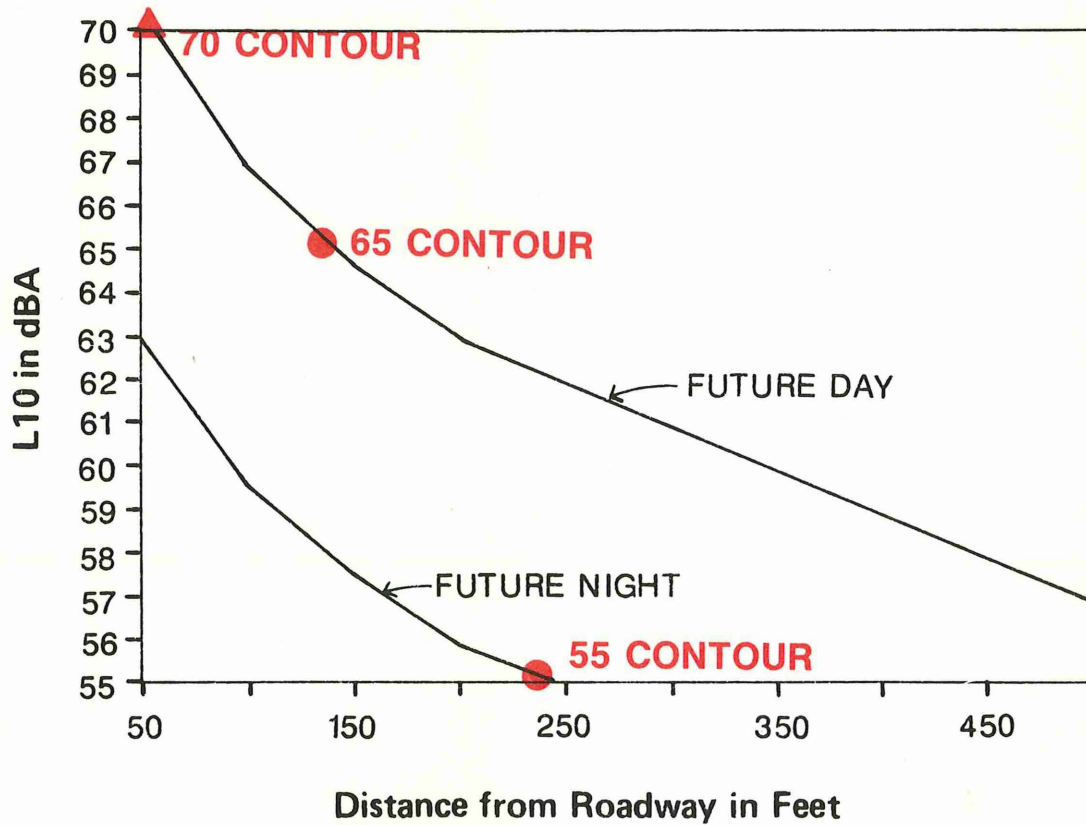
Mitigation was considered for both alternates and, as the highway is an expressway and the number of impacted receptors is very low, found to be unfeasible.

Methodology

Using present and future traffic for each alternative, noise level contours were determined with STAMINA 2.0, a computer program. This information was then applied to aerial photos and maps of the proposed route, and from this a noise impact inventory was created. Because the proposed alignment for each alternative was tied down better at the writing of the Supplementary FEIS, the number of impacted receptors along the Urban Section is much lower now than in the Final EIS.

TABLE 9S
RECEPTORS EXCEEDING
FEDERAL AND STATE NOISE STANDARDS

Alternative	Year 1983		Year 2006		
	Federal	State Day Night	Federal	State Day Night	
URBAN SECTION:					
No Build	49	143 331	69	236 544	
West Cloquet Bypass			0	1 7	
Through Town			47	150 355	
East Cloquet Bypass			0	3 5	



- ▲ Federal Noise Standard
- State Noise Standard

Figure 11s: NOISE CONTOURS

ENERGY IMPACTS

The description(s) and discussion(s) concerning Energy Impacts remain the same as in the final TH 33 Environmental Impact Statement. All descriptions and assessments concerning Energy Impacts in the final TH 33 EIS are correct and up-to-date.

FLOODPLAINS

Federal Insurance Administration Flood Hazard Boundary Maps have been examined for the possible TH 33 alternates from the junction of TH 33 and Interstate 35 south of Cloquet, Minnesota to the Morris Thomas Road north of Cloquet, a distance of approximately 8 miles.

The floodplains illustrated on the water resources map are taken from the cities of Cloquet and Scanlon and from St. Louis and Carlton counties floodplain maps. (Figure 12S)

Table 10S lists the possible floodplains that may be crossed depending upon which alternate is selected.

Choosing any of the tabulated alternates should not result in any significant floodplain impacts for the following reasons.

I. No significant potential for interruption of a community's only evacuation route will result.

A. The final roadway profile will be above the calculated 100 year flood elevations. These elevations will be determined during design.

II. No significant increased risk of flooding will result.

A. All hydraulic structures (bridge or culvert) will be designed to meet Minnesota DNR criteria for stream crossings.

B. All hydraulic structures will be designed so that no significant change in headwater or tailwater elevations should occur.

1. If flooding problems are discovered during the design phase, measures will

be taken to alleviate or minimize the flooding.

III. No significant impact on natural and beneficial floodplain values will result.

A. Hydraulic structures will be designed to perpetuate fish movements.

1. No significant spawning areas will be affected.

B. No threatened or endangered plants or animals will be affected.

C. The bridge over the St. Louis River will be designed to blend with the river valley.

D. Canoe and boating access to the St. Louis River will not be affected.

IV. The proposed 4 lane roadway from south of Cloquet to the Morris Thomas road should not support incompatible floodplain development.

A. St. Louis and Carlton counties have zoning ordinances regulating floodplain development.

B. The Minnesota DNR has Shoreland ordinances regulating development along the St. Louis River.

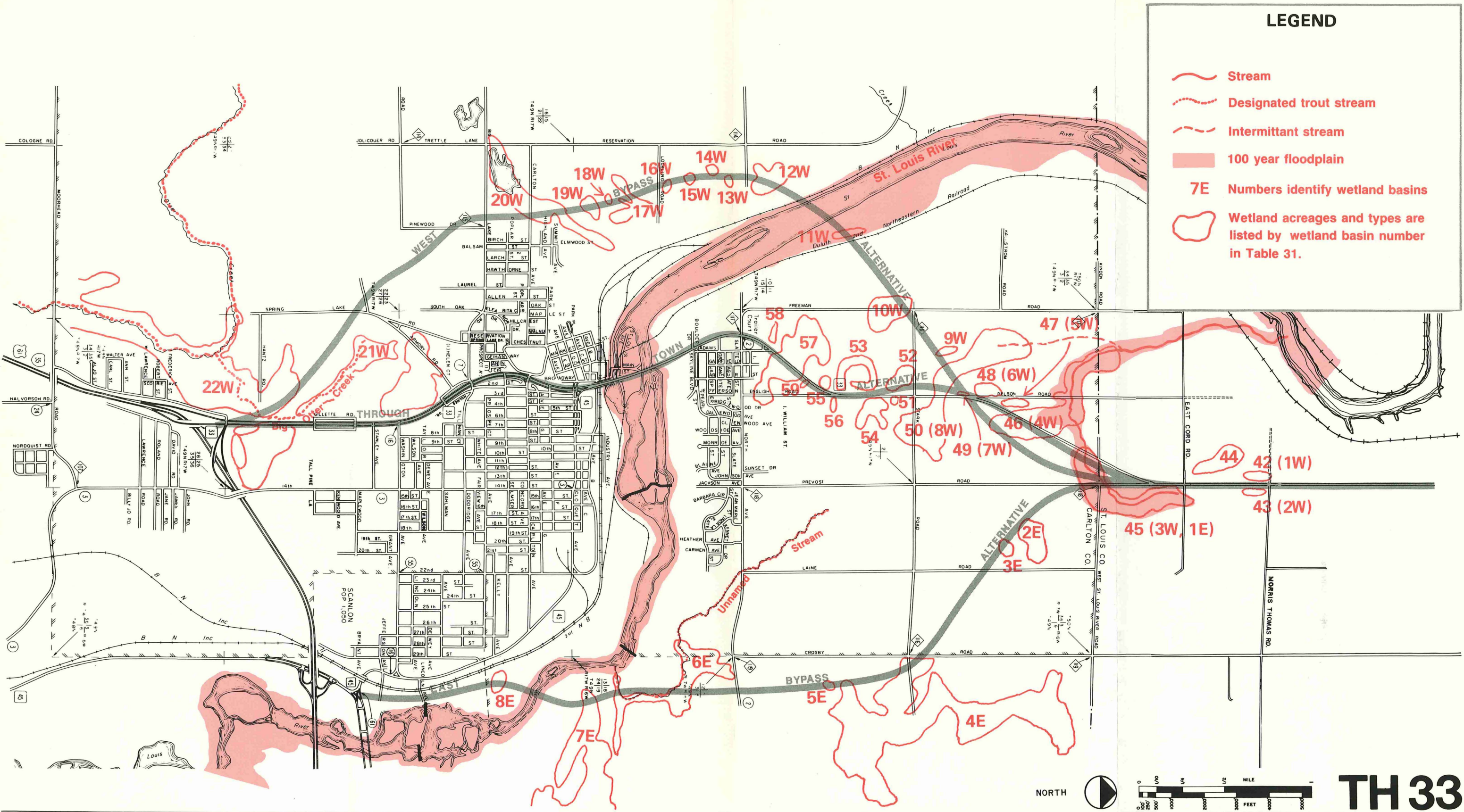
Based on the above assessment, no significant floodplain impacts are expected.

TABLE 10S FLOODPLAIN CROSSINGS FOR EACH ALTERNATIVE

ALTERNATE	FLOODPLAIN	TYPE OF CROSSING	LENGTH
West Cloquet By-Pass	St. Louis River	Transverse	2000'
	Unnamed Creek	Transverse	200'
Through Town	St. Louis River	Transverse	2000'
	Unnamed Creek	Transverse	200'
East Cloquet By-Pass	St. Louis River	Transverse	1000'
	Unnamed Creek	Transverse	500'

WATER QUALITY

The East and West bypasses as well as the Through Town Alternative cross the St.



LEGEND

- ~ Stream
- - - Designated trout stream
- · - · - Intermittant stream
- 100 year floodplain
- 7E Numbers identify wetland basins
- Wetland acreages and types are listed by wetland basin number in Table 31.

Figure 12S: WATER RESOURCES

NORTH

0 500 1000 2000 3000 4000 5000
FEET

0 1/2 1
MILE

Louis River and several unnamed watercourses. The quality of the water in these watercourses is generally good. Water samples were collected in roughly half of the unnamed watercourses in the urban section of this project. Water quality data was available for the St. Louis River from the United States Geological Survey which maintains a gauging station at Scanlon.

The Through Town Alternative would probably have the least adverse impacts upon the water quality since it entails creating the smallest area of additional impervious surface. In general, the greater the area of new impervious surface, the more pollutants will be generated and delivered to receiving waters. Conversely the East and West Alternatives entail the creation of 4 lanes of highway and surrounding right-of-way on undeveloped land within the urban section. The Final EIS for TH 33 describes the characteristics of urban and highway runoff which are comparable to the runoff that is anticipated for the urban alternatives of TH 33. Specifically, the quality of runoff resulting from the paved surface itself and the adjacent right-of-way would likely be similar to that of a rural freeway as shown in Table 19 of the Final EIS for TH 33.

GROUNDWATER IMPACTS

No impacts to groundwater quality or quantity are anticipated for the Through Town Alternative. Several groundwater issues have been identified for the Bypass Alternatives.

While the layout of the West Cloquet Bypass does not indicate that any of the City water wells will be physically impacted, this alignment would be located approximately 250 feet west of the Spring Lake Pumping Station, where two ground reservoirs and pumping facilities are located. Drainage in this area appears to flow to the west, however, this alternative would require that measures be taken to keep highway runoff from reaching the gravel bottomed reservoirs. Also, depending on the grade through this section, any dewatering necessary for

construction purposes could significantly impact these facilities. City Wells Nos. 1 and 2 are located approximately 700 feet to the west of the alignment and are sufficiently deep that the risk of contaminating these is minimal. As the City of Cloquet expands their well fields and increasingly depend on this area to supply a source of clean water, the construction of a transportation facility proximate to this location becomes less desirable. This is due to the utilization of relatively shallow drift aquifers for groundwater resources. Detailed Design on a West Cloquet Bypass should include consultation with the Cloquet Director of Public Works to coordinate on this issue.

The East Cloquet Bypass could also have a potential for dealing with a groundwater issue. Layouts of this alternative depict the alignment going through the old Scanlon City Dump. This site, about 2 to 3 acres in size, was used to dispose of household debris and other rubbish. No records indicate that this site was used by nearby industries, however, this possibility cannot be ruled out. Preliminary borings should be taken to better assess the potential for groundwater contamination. Should hazardous wastes be found at the dump location, the cost and time restraints of cleaning up the site may negate the feasibility of the East Cloquet Bypass Alternative.

STREAM MODIFICATION

Streams can be modified during highway construction by constructing a bridge over the stream, placing the stream within a culvert under the highway or by relocating the channel away from the highway. Unlike the Rural Section of this project, no major channel changes are required for any of the alternatives.

A. West Bypass

The West Bypass alternative would cross the Headwaters of Big Otter Creek, a DNR protected water and designated trout stream. Approximately 400 feet of stream would be placed within highway culverts and lost as fishery habitat. This stream is a spawning and nursery area for brook trout and a cold water source for Big Otter Creek. The St. Louis River (a DNR

protected water) would be bridged, with minimal effect, for a distance of 1500 feet. An unnamed (warm water feeder) stream would be crossed and placed within a culvert for a distance of 250 feet. the

B. Through Town

The Through Town alternative would bridge two channels of the St. Louis River, with minimal effect, for a distance of 500 feet. An unnamed (warm water feeder) stream would be crossed and placed within a culvert for a distance of 150 feet.

C. East Bypass

The East Bypass alternative would bridge the St. Louis River, with minimal effect, for a distance of 400 feet. An unnamed stream--a DNR protected water and designated trout stream--would have 400 feet of stream placed within a culvert and lost as fishery habitat. The stream has a fishery for small brook trout. Another unnamed stream--a warmwater feeder stream--will be crossed and placed within a culvert for a distance of 250 feet.

D. Measures to Minimize Harm

Appropriate erosion control measures, both temporary and permanent, will be planned and developed for each stream crossed by the alternative which is ultimately selected. Other measures to reduce possible fisheries impacts must await selection of the preferred alternative.

WETLANDS

A. Introduction

The description(s) and discussion(s) concerning the sections on Overview of Study Area Wetlands, Value of Wetland Habitats, Table 22 (p. 155), Wetland Impacts in General, Rural Section, Table 23, (p.157). Table 24 (p. 159) and No Build Alternative, remain the same as in the final TH 33 Environmental Impact Statement. Impacts within Alternative Corridors, Urban Section, and Wetland Mitigation, in the final TH 33 EIS are correct and up-to-date. Tables 11S, 12S, 13S and 14S have been added in this Supplemental Environmental Impact Statement.

A wetlands inventory was prepared for the study area. Wetland basins in the

vicinity of the alternatives were mapped on aerial photographs, classified by type and their basin size calculated. For this inventory, wetland acreages were rounded to the nearest 0.1 acre. Wetlands of 50 or more acres were rounded to the nearest 5 acres. All impacted acreages were rounded to the nearest 0.1 acre. Wetlands were classified according to circular 39 of the U.S. Fish and Wildlife Service.

B. Impacts within
Alternative
Corridors

Wetlands were evaluated by using a Habitat Evaluation Procedure (HEP) that has been developed through coordination with the U.S. Fish and Wildlife Service and the Minnesota Department of Natural Resources. The HEP assigns a Habitat Suitability Index (HSI) to each wetland type. The HSI is a value between 0 and 100 which represents the importance of a given wetland type to wildlife species. The acreage of a given wetland multiplied by its HSI yields Habitat Units (HUs), which are a reflection of the wetland's value relative to wetlands of differing types and sizes.

Impacts to wetland basins were derived by placing right of way limits along the alternative alignments (Tables 11S, 12S, 13S). The right of way width for the Through Town Alternate was approximately 285 feet on the sections along the existing highway (depending on the width of the median) and 300 feet on new alignment. The right of way width of the bypass alternatives was approximately 300 feet. The wetland impact acreages calculated for each alternative represent the maximum amount of wetland impact that could occur. Because construction impacts to wetlands seldom extend to the right-of-way limits, actual wetland impacts will often be less than those estimated. Actual wetland impacts can be calculated once construction limits are known.

Due to a more accurate assessment of the alternative alignments, many values, estimates and tabular data will show changes between the Final EIS (Table 21, page 154) and the Supplemental EIS (Table 16S).

C. Through Town
Alternative

The Through Town Alternative ranks third in the acreage of wetlands that would be affected (24.8 acres) The maximum number of Habitat Units (HUs) lost along this route would be approximately 1850 (Table 15S).

The West Cloquet Bypass Alternative ranks first in the acreage of wetlands that would be affected (54.4 acres). The maximum number of Habitat Units (HUs) lost along this route would be approximately 4100 (Table 15S).

The East Cloquet Bypass Alternative ranks second in the acreage of wetlands that would be affected (28.3 acres). The maximum number of Habitat Units (HUs) lost along this route would be approximately 2200 (Table 15S).

D. No Build
Alternative

The No Build Alternative will not impact any wetlands. A two lane reconstruction project, compatible with the No Build Alternative, did impact one acre of wetland. This project was completed in 1986.

E. Measures to
Minimize Harm

All wetlands impacted by the alternative ultimately selected for this project will be fully mitigated on a habitat unit basis. In addition all minimization measures committed to in the previously approved FEIS will also be implemented for this urban section. If the mitigation measures for impacts to wetlands from the TH 33 projects, currently under construction between TH 53 and the Morris Thomas Road, result in an excess of HUs; these will be applied towards impacts incurred in the urban section. The following measures will also be investigated as a means of providing any necessary wetland habitat units:

A. Borrow areas adjacent to the selected urban alternative could be used to create wetlands.

B. Wetlands that are types 3-4 (shallow marshes, deep marshes and shallow lakes) could have adjacent uplands excavated to increase their basin size.

C. Some wetlands could benefit by the

installation of control structures at their outlets. An example of this is wetland no. 21W, which is associated with Otter Creek. This area has been periodically flooded due to beaver activity, and a control structure would lend stability to its present situation.

D. Ponds could be excavated adjacent to an existing MN/DOT pond in the I-35/33 intersection. Dying cedar on the edge of the existing pond could be dozed to create an open water pond.

TABLE 11S
INDIVIDUAL BASIN IMPACTS FOR THROUGH TOWN ALTERNATIVE

Wetland Number	Wetland Type	Basin Size (acres)	Wetland Impact (acres)
42	6/7	6.6	4.3
43	2/6	0.8	0.2
44	2/6	8.	NONE
45	2/6/7	65.	3.4
46	7	81.	4.9
47	6	2.6	0.9
48	2/6	1.5	1.0
49	2/6	0.6	0.2
50	2/6/7	100.	2.7
51	4	3.3	1.5
52	6	1.0	0.1
53	6	2.9	2.7
54	2/6	3.7	0.6
55	6	0.6	0.4
56	6	0.5	0.2
57	6/7	90.	1.3
58	2/6	0.7	0.2
59	2/6	0.3	0.2
		369.1	24.8

TABLE 12S
INDIVIDUAL BASIN IMPACTS FOR EAST ALTERNATIVE

Wetland Number	Wetland Type	Basin Size (Acres)	Wetland Impact (Acres)
1E	6/7	65.	6.9
2E	2/6	20.1	0.9
3E	2	2.2	1.2
4E	6/7/8	250.	6.3
5E	2/6	1.4	1.4
6E	2/3	54.	2.6
6EA	2/6	54.	3.4
7E	3/6	130.	1.6
8E	5*	7.5	4.0
		530.2	28.3

*Note: Wetland 8E is a settling pond for the Potlatch Mill. Therefore, it should have a lower Habitat Suitability Index than similar type 5 wetlands which are not used industrially.

TABLE 13S
INDIVIDUAL BASIN IMPACTS FOR WEST ALTERNATIVE

Wetland Number	Wetland Type	Basin Size (acres)	Wetland Impact (acres)
1W	6/7	6.6	4.3
2W	2/6	0.8	0.2
3W	6	65.	0.8
3W	7	65.	5.4
4W	6	81.	4.5
5W	6	2.6	0.2
6W	2/6	1.5	1.0
7W	2/6	0.6	0.1
8W	2/6/7	100.	3.5
9W	6	1.4	1.4
10W	6/7	119.	2.8
11W	3/6	1.4	0.8
12W	6	21.4	4.9
13W	3/6	1.7	0.6
14W	2/6	2.0	0.6
15W	2/6	3.1	2.9
16W	6	1.9	1.1
17W	6/7	11.5	1.3
18W	6	0.9	0.8
19W	6/7	6.4	3.1
20W	2/6	70.	9.5
20W	2/3	70.	3.7
21W	6/7	55.	0.4
22W	6/7	110.	0.5
		663.8	54.4

TABLE 14S
OVERVIEW OF WETLAND IMPACTS FOR THROUGH TOWN ALTERNATIVE

Wetland Combination	HSI * Per Acre-Type	Impact (Acres)	HUs Lost
2/6	75	3.7	277.5
2/6/7	75	6.1	457.5
4	92	1.5	138.
6	75	4.3	322.5
6/7	75	4.3	322.5
7	66	4.9	323.4
		24.8	1841.4

TABLE 14S (CONT'D)
OVERVIEW OF WETLAND IMPACTS FOR WEST ALTERNATIVE

Wetland Combination	HSI * Per Acre-Type	Impact (Acres)	HUs Lost
2/3	83	3.7	307.1
2/6	75	14.3	1072.5
2/6/7	75	3.5	262.5
3/6	83	1.4	116.2
6	75	13.7	1027.5
6/7	75	12.4	930.
7	66	5.4	356.4
		54.4	4072.2

TABLE 15S OVERVIEW OF WETLAND IMPACTS FOR EAST ALTERNATIVE

Wetland Combination	HSI * Per Acre-Type	Impact (Acres)	HUs Lost
2	66	1.2	79.2
2/3	83	2.6	215.8
2/6	75	5.7	427.5
3/6	83	1.6	132.8
5	81	4.0	324.
6/7	75	6.9	517.5
6/7/8	75	6.3	472.5
		28.3	2169.3

*Note: HSI values are derived from the generic HEP model currently being used for wetlands in District 1. Values for wetland combinations are derived by using the highest value of wetland types represented.

TABLE 16S
SUMMARY OF WETLAND CHARACTERISTICS

Characteristic	Through Town	West Cloquet Bypass	East Cloquet Bypass	No Build
Number of Wetlands	18	22	8	4
Total Basin Acreage	370	663.8	530	126.3
Most Frequent Wetland Combination	2/6	6	2/6	none
Greatest Acreage Combination	2/6/7	2/6	6/7	2/6/7/8
Most Frequent Size Class (Acres)	1-10	1-10	more than 50	none
Average Wetland Basin Size (Acres)	20	30	66	32
Four Lane Acreage Impacted	24.8	54.4	28.3	NA

NA: Not applicable

WILDLIFE

The Through Town Alternative would impact the least amount of habitat suitable for wildlife (undeveloped land use type). This alternative would impact an excellent waterfowl nesting area (wetland No. 52).

The West Cloquet Bypass Alternative would impact the second greatest amount of undeveloped habitat, being as it is the shortest of the two alternatives involving four lanes on new alignment. This alternative would impact wetlands of high value to wildlife (Types 3 and 4) and would separate them from one another. The wetlands Northeast of Twin Lake are some of the few Type 3 and 4 wetlands in the Cloquet area.

The East Cloquet Bypass Alternative would impact the most undeveloped habitat, it being the longest of the two alternatives involving four lanes on new alignment.

This alternative would transect several Type 6 wetlands before crossing the St. Louis River (see wetlands No. 6E-7E). These wetlands are characterized by beaver impoundments and constitute excellent woodduck habitat. Wetland No. 6E is surrounded by a considerable amount of waterfowl nesting cover. For further discussion of wildlife impacts refer to pages 165 to 167 of the FEIS.

THREATENED AND
ENDANGERED SPECIES

The description(s) and discussion(s) concerning threatened and endangered species remain the same as in the final TH 33 Environmental Impact Statement. All descriptions and assessments concerning threatened and endangered species in the final TH 33 EIS are correct and up-to-date.

BICYCLE AND
PEDESTRIAN
CONSIDERATIONS

Trunk Highway 33 is identified as a major bicycle travel corridor in the Minnesota State Bicycle Transportation System Plan. A significant number of touring bicyclists and local bicyclists use this route for travel to points north.

A. Through Town
Alternate

I-35 to Big Lake Road

The corridor through Cloquet up to CSAH 7 currently rates "fair" to "good" for bicycle travel. The existing road design is divided with two 12 ft. lanes in each direction, 8 ft. bituminous shoulders and a seasonally adjusted ADT ranging from 5246 up to 10,149. The projected traffic volumes will increase to 10,700 by the year 2006. The bikeway rating will decline to "fair".

Big Lake Road to TH 45

The urban character and high traffic volumes along this section of TH 33 renders it unsatisfactory for bicycle travel. Streets paralleling TH 33 in this area can provide the cyclists with a safe alternative. The unpaved west boulevard from TH 45 to Pinehurst Park is used as a trail by local cyclists.

TH 45 to Morris Thomas Road

The section of TH 33 immediately north of TH 45 and across the St. Louis River currently rates unsatisfactory for bicycling due to high volumes of traffic

and the absence of paved shoulders. Although the bridge roadways are unsatisfactory for bicycling, the attached walkway is used by both pedestrians and cyclists.

Immediately north of the bridges the existing design generally consists of two 12 ft. lanes with 8-10 ft. bituminous shoulders. With the seasonally adjusted ADT of 11,176, this section of road rates "poor" to "unsatisfactory" for bicycling. The year 2006 projected ADT is 14,450 and would rate unsatisfactory if the existing design is maintained.

Two design alternatives have been considered for this section of TH 33. The first design consists of two 12 ft. lanes in each direction and a continuous left turn lane with curb and gutter. The second design consists of two 12 ft. lanes and a continuous left turn lane with paved shoulders.

If the curb and gutter design were selected the roadway would rate "unsatisfactory" for bicycling due to the lack of adequate shoulder width and high traffic volumes. In this case a separated bike/pedway should be provided across the river on the east side and continued up the hill to at least Skyline Blvd. A combined bicycle/pedestrian facility should be a minimum of 8 ft. wide in this area.

If the shoulder design were selected (with an ADT of 14,450) 9 ft. shoulders would be necessary in order to achieve a "fair" bikeways rating. Paved shoulders through this area would provide continuity with the road section north of English Road.

Pedestrian needs should also be accommodated regardless of which road design is chosen. With the existing development in the area (including a school, hospital, and residential), significant pedestrian demand can be expected. An attached but separate pedestrian crossing on the east side of the river bridge should be provided. In addition a sidewalk should extend up the

hill on the north side of the river.

Because the distance across the roadway will be 60 to 80 ft., depending upon the selected design, provisions should be made to safely accommodate pedestrians crossing the road. This may consist of center islands at crosswalks and possible pedestrian activated signals.

B. Bypass
Alternatives

Selection of the East or West Bypass alternative will have a significant effect on bikeway suitability. A rural design divided roadway for the bypass (with 6 ft. paved shoulders at a 10,700 ADT) will achieve a "fair" bikeway rating according to the Mn/DOT bikeways design standards. However if the urban design section is chosen for the bypass, the roadway will rate "unsatisfactory" for bicycling. In such case, an off-road bikeway/pedestrian facility should be considered for the new corridor.

VISUAL ANALYSIS

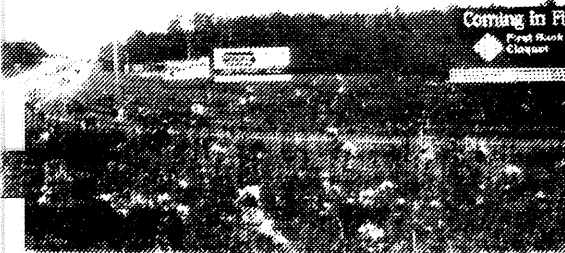
Visual analysis is a way of evaluating the scenic character of an area before and after road construction. The analysis can be divided into three parts: 1) a description of the road and landscape as seen by a traveler; 2) a description of the road as seen by its neighbors; and 3) recommendations which would improve the scenic character of the road or landscape.

The three parts of the visual analysis are discussed separately below. Items discussed in the text are referenced by letter on Figure 13S.

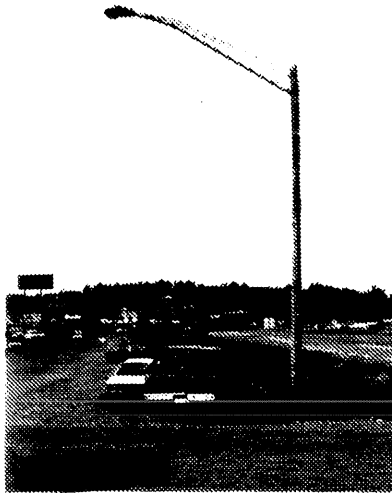
VISUAL EXPERIENCE OF THE TRAVELER

A. Through Town
Alternative

For a traveler exiting north from I-35, the evergreen-covered Cloquet Esker (Item A), a unique serpentine hill of glacial origin, dominates the landscape. The view of the esker is marred by the billboards (Item B) which flank the alignment and greet the traveler entering Cloquet.

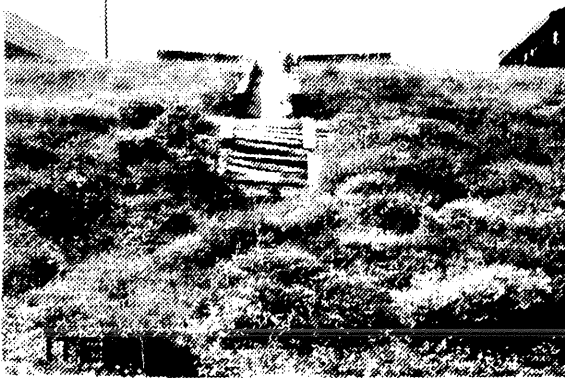


One mile north of the freeway, the evergreen landscape is replaced by recent commercial development. Detracting from the commercial enterprises are overhead



wires, inconsistent lighting standards, and parking lots (Item C) encroaching on the right-of-way.

North of County Road 7 (known as Big Lake Road to the west and Doddridge Road to the east), the character of the landscape changes dramatically. On the west side of the highway, hillsides steepen, creating an enclosed intimate feeling. The buildings are older, built before World War II. The city's water tower is visible but the city's name is oriented to TH 45. A private wood culvert (Item D) draining a parking lot is dilapidated. On the east side of the roadway, an electric substation (Item E) is well maintained and landscaped.



The image of Pinehurst Park (Item F) from the highway is blemished by a stark cyclone fence, dirt pathways, and a dirt parking lot. Plantings separating the highway and the park are sparse.

The urban character climaxes at TH 45 (Cloquet Avenue), the boulevard entry into downtown Cloquet. On the northeast corner, plantings separating the highway and the Veterans' Park (Item G) are sparse. On the northwest corner, a relic Duluth and Northeastern steam locomotive (Item H) identifies the era in which the city developed. On the southeast corner, a gas station (Item I) designed by architect Frank Lloyd Wright adds historical interest to the intersection.



Critical to the visual experience of the traveler will be the location, design, and detailing of the bridges crossing the St. Louis River. The lighting and railing details on the existing bridge (Item J) connecting downtown Cloquet with Dunlap Island complement the character of the boulevard. The railing and lighting details are fabricated in steel. The concrete detailing of the bridge piers reflects the era's industrial ideal. The character and detailing of the northern bridge (Item K), connecting Dunlap Island with the north bank, is architecturally less dramatic. Only the period light posts and iron railing on the northern bridge offer visual interest. The safety

LEGEND

- | | |
|-------------------------|--------------------------|
| A Cloquet Esker | K Bridge |
| B Billboards | L Dunlop Island |
| C Parking Lot | M Pine Plantation |
| D Wood Culvert | N Salvage Yard |
| E Substation | O Tile Roofs |
| F Pinehurst Park | P Rock Cuts |
| G Veterans Park | Q Dams |
| H Locomotive | R Paper Mill |
| I Wright Station | S Power Line |
| J Bridge | T Golf Course |

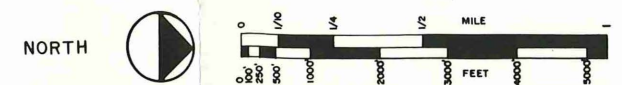
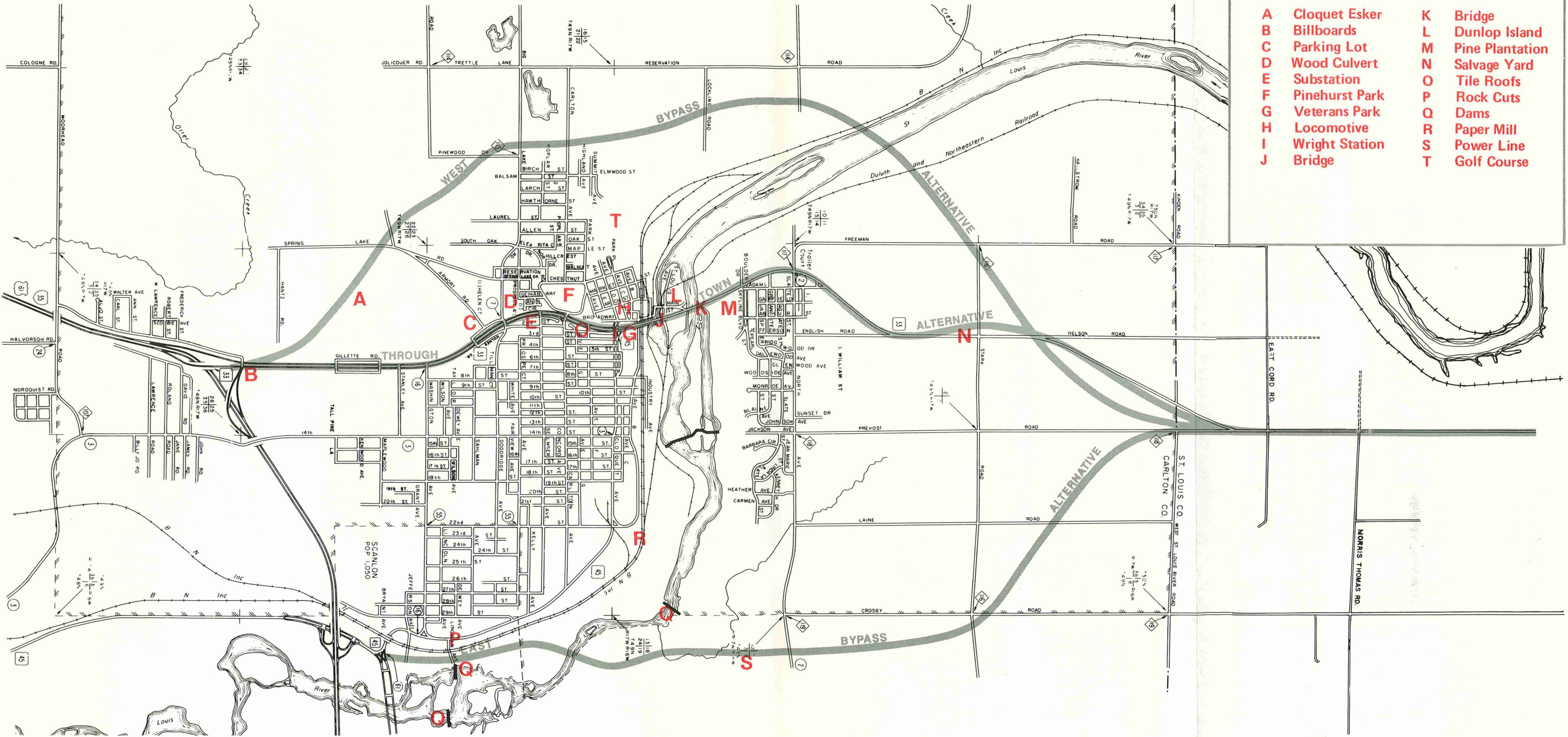


Figure 13s: VISUAL ANALYSIS

Supplemental EIS

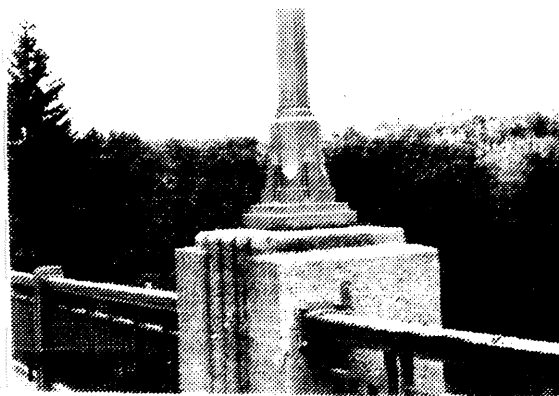
TH 33
Urban Section



barrier on the northern bridge inhibits views of the river. The old buildings on Dunlap Island (Item L) and the paper mill (Item R) are, however, readily viewed while crossing both bridges.

If new bridges are constructed to replace the existing structures, twin spans (separate but identical structures for each direction) would be less overwhelming to the traveler than a single wide span.

On the north bank, evergreen hills (Item M) again greet the traveler. Early post-war strip development with wide drives and overhead wires occurs between Skyline Boulevard and North Adams Street.



Continuing north, between North Adams Street and Morris Thomas Road, the landscape character becomes increasingly rural. Billboards, salvage yards (Item N), abandoned cars, and abandoned or dilapidated buildings occasionally blemish the landscape.



Critical to the visual experience of the traveler will be the width of the right-of-way clearing. If new right of way is cleared for the road, the degree to which the right of way is disturbed will significantly affect the perception of how the highway relates to the community and the landscape. Adjusting the clearing and grubbing limits to fit existing topography and vegetation creates the perception that the highway was designed with the community and landscape rather than forced onto them.

ITEM J

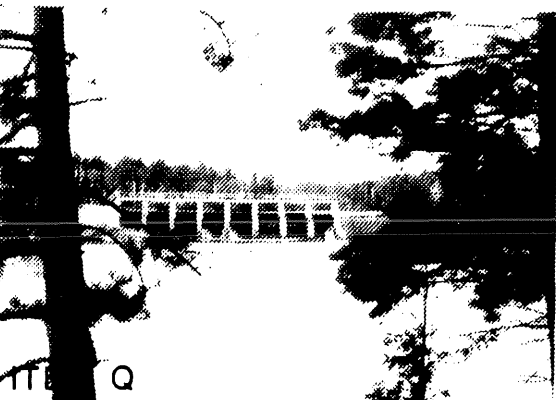


Reversing direction, the Through Town Alternative offers a similar experience to the southbound traveler. The primary difference is the approach into downtown Cloquet from the north is more dramatic but less intimate than the southern approach. Traveling south, the red tile roofs emerging from the urban forest (Item O), bridges sweeping into town, and the old brick buildings on Dunlap Island, provide an intriguing hint of a city nestled into its landscape. Crossing the bridge and approaching Cloquet Avenue, the Frank Lloyd Wright designed gas

ITEM J

station dominates the scene. A jumble of traffic signs mar the view of it, however.

B. East Bypass Alternative



The experience of the traveler on the East Bypass will be primarily rural. Visually, the alignment is rather pristine with some commercial development near I-35. Picturesque rural vistas will be of marsh, river, pasture, woodland, and an occasional farmstead or home. Exposed rock cuts (Item P) and purposeful industrial forms--dams (Item Q), a paper mill (Item R), and power lines (Item S)--add drama and punctuate the scene.

Critical to the visual experience of the traveler will be the design and detailing of the right-of-way and the location, design, and detailing of the bridges.

C. West Bypass Alternative

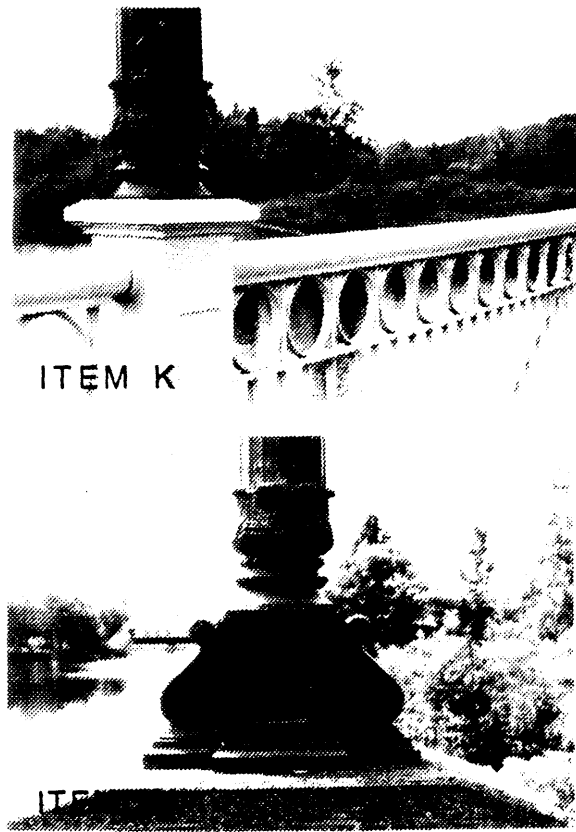
The visual experience of the traveler on the West Bypass will be primarily of rural and suburban scenes. The Cloquet Esker (Item A) will greet the traveler. Near the middle of the alignment, a pastoral golf course (Item T) may become part of the scene. The primary vista will be of scattered single family homes.

Critical to the visual experience of the traveler will be the design and detailing of the right-of-way and the location, design, and detailing of the bridges.

D. Visual Impact On Neighbors

All alternatives will create both minor and major visual impacts to the community of Cloquet. Minor impacts are created by construction which adds elements similar to those which compose the existing scene. Major impacts are created by construction which changes the character of the existing scene. Many minor impacts clustered together may create a major impact. Highways, by focusing attention, may inadvertently cluster a series of minor impacts into a major eyesore.

The minor impacts to neighbors which are caused by highway construction include inconsistent lighting, inconsistent signing, and inconsistent pavement.



The major impacts to neighbors include the location of the alignment, the degree of landscape disturbance, and the construction of bridges.

The location of the alignment and the degree of landscape disturbance will be a significant concern in each alternative where new alignment is proposed. The degree to which the clearing and grubbing limits can vary to fit existing topography and vegetation will be critical in reducing the visual impact to neighbors. Screening traffic from individual homesteads with vegetation may reduce the visual impacts of new construction.

The construction of bridges will be a concern in each corridor because bridges are large structures which become part of a community's visual identity. For the all alternatives, the location, design, and detailing of the bridges will significantly contribute to the visual character of the Cloquet community.

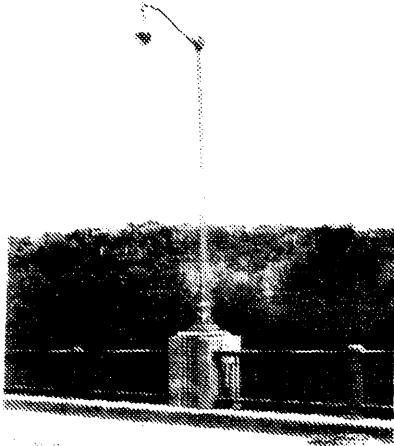
E. Measures to Minimize Harm



Depending upon the alternative selected, the following measures to minimize harm will be considered to reduce visual impacts. Many of these measures are to rectify minor impacts. Rectifying many minor impacts may provide a major visual improvement. Some of the concerns cited previously are beyond the responsibility of Mn/DOT and are not included in these measures:

1. Coordinate the design of light fixtures and standards throughout the corridor, including service roads, to complement the existing landscape.
2. Standardize highway signing and avoid ganging signs of different sizes and configurations.
3. Landscaping of plant materials to screen adjacent buildings and landscape the corridor to screen adjacent buildings and to frame views from the road.
4. Minimize clearing of trees and shrubs along the right of way and vary the backslope to save existing topography and vegetation.
5. Leave rock cuts exposed.





USE SIMILAR DETAILS

6. The use of similar architecture should be considered for the design of new bridges across the St. Louis River.

The following measures to minimize harm are unique to the Through Town Alternative:

7. Highway signs in the vicinity of the Frank Lloyd Wright gas station should avoid inhibiting motorist views of the building, or be designed to complement the prairie architecture of the station.

HISTORICAL/ARCHAEOLOGICAL IMPACTS

The rich history of the Cloquet area was influenced by the fur trade and logging eras. All of the sites which have been identified as having historic value are located within the urban section.

The sites which have the potential to be impacted by various alternatives are as follows:

No Build Alternative

No potential impacts

Through Town Corridor

- Dunlap Island
- Northeastern Hotel
- C.N. Nelson Lumber Co.
- Northern Lumber Co. Boarding House
- Frank LLOYD Wright "Phillips 66" Gas Station

West Cloquet Bypass

- Cloquet Boom House & Sorting Sheds
- Northern Lumber Co. Upper Mill

East Cloquet Bypass

- Brooks-Scanlon Mill Complex
- Woman's Portage (west side)
- Woman's Portage (east side)

Further information on these sites is found in the FEIS and in the Draft Section 4(f) Evaluation of this document. The State Historic Preservation Office is

currently conducting an archaeological survey of all three alignments. Results of that survey will be included in the Final Supplemental EIS.

CONSTRUCTION IMPACTS

A major transportation project will exert significant short term effects on the local and regional economy. These impacts are caused by the introduction of employment, income, and the purchase of construction materials and supplies. The latest estimated construction costs are as follows. The Urban Through Town Alternative construction cost is \$8.2 million, the West Bypass Alternative is \$23 million, and the East Bypass Alternative's cost is \$17.5 million. The No-Build in the urban section is \$5.1 million in construction costs.

The data presented and discussed below are based upon information empirically generated by the FHWA from contractor's reports. Although the data are quite precise for the level of aggregation and years indicated, there are two limiting conditions. First, the data are national averages. To the extent that a project is not "average", i.e. involves unique construction and/or engineering problems, the cost will vary. Second, costs for highway construction have been subject to variable rates of change over the past few years. This means that the data discussed below should not be misconstrued as a prediction of costs in 1986, but rather as a description of average costs for projects constructed during 1982, 1983 and 1984.

A. Employment and Income

Two different statistics are available to estimate labor impacts (Table 17S). For projects completed during 1983, 19.7 percent of construction costs for Federal-Aid highways were allocated to labor. On this basis, the Urban Through Town Alternative could generate \$1.6 million (Through Town at \$8.2 million), the West Bypass Alternative could generate \$4.5 million (West Bypass at \$23 million) and the East Bypass Alternative could generate \$3.4 million (East Alternative at \$17.5 million). The No Build Alternative could generate \$1.1

million (No-Build at \$5.1 million).

Another available datum is employee-hours per million dollars of construction cost. For recently completed projects, the FHWA reports that nearly 19,700 employee hours of labor were generated by each million dollars of construction costs. Using a construction wage of \$14.96 per hour, the Urban Through Town Alternative would produce approximately \$2.4 million of labor income. The West Bypass Alternative could generate \$6.8 million, and the East Bypass Alternative could generate \$5.2 million. The limited improvements associated with the No-Build Alternative would generate approximately \$1.5 million of labor income.

B. Material/Supply
Acquisition

A project such as the one proposed involves the purchase of substantial quantities of construction materials and supplies. Table 18S presents data regarding the cost of supplies and materials on non-interstate federal-aid projects completed during 1984, and estimates the amount which would have been expended on TH 33. Many of these cost items would also involve labor impacts, e.g., the purchase of aggregates would cause employment for equipment operators, truck drivers, and others.

C. Other Economic
Impacts

All funds introduced through project construction and right-of-way acquisition are subject to the "multiplier" effect. Purchases which are made from other regions require dollars to flow out of the local economy, while money received by local business may be used to pay wages, purchase products, pay taxes and become profits. Wages received will be partly saved and partly spent. Some of the products purchased with labor's

TABLE 17S
EFFECTS OF CONSTRUCTION ON EMPLOYMENT TH 33 (I-35 TO TH 53)

ITEM	POTENTIAL EXPENDITURES			
	Urban Through Town Alternative (1000's) \$ 8,200	West Bypass (1000's) \$23,000	East Bypass (1000's) \$17,500	No-Build (1000's) \$ 5,100
Potential Direct Labor Income (a)	\$ 1,600	\$ 4,500	\$ 3,400	\$ 1,005
Potential Person-Hours of Labor (a)	162	453	345	100
Wage Earnings at \$14.96 per hour (b)	\$ 2,424	\$ 6,777	\$ 5,161	\$ 1,503

(a) Figures generated from data in Highway Statistics 1984
Federal Highway Administration, Federal Aid Division

(b) Current Minnesota Labor Market Conditions. Mn Dept. of
Jobs and Training (April 1986). State-wide average hourly
earnings of construction workers was \$14.96.

TABLE 18S
TYPICAL EXPENDITURES FOR MATERIALS
AND SUPPLIES: F.A.H. CONST. CONTRACTS DURING 1984 (in 1000's of
dollars)

Item	Percent of Construction Costs Expended Per Item	Expected Value of Purchases of Materials and Supplies on Alternatives Costing:			
		\$8.2 mil (Urban Through Town)	\$23 mil (West Bypass)	\$17.5 mil (East Bypass)	\$5.1 mil (No-Build)
Aggregates	11.7	\$ 959	\$ 2,691	\$ 2,048	\$ 596
Portland Cement	3.5	287	805	613	179
Bitumens	8.5	697	1,955	1,488	434
Steel	7.7	631	1,771	1,348	393
Others	15.4	1,263	3,542	2,695	785
Total Materials and Supplies	46.8	\$ 3,838	\$10,764	\$ 8,190	\$ 2,387

Table generated from data in Highway Statistics 1984 Federal
Highway Administration, Federal Aid Division

income will have been produced in the region, while others are from outside the region. This cycle repeats itself until the original money injection is completely dissipated.

D. Air Quality

Construction will have a negative impact on air quality. Air pollution will include emissions from vehicles, equipment and also possibly a hot mix paving plant. Fugitive dust sources, which are mainly grading operations and temporary dirt roads, will also be a source of air pollution.

Since this is an area of air pollution attainment (i.e., it has been designated as an area meeting ambient air quality standards) no special precautions or permits are needed to stay within the standards with the normal amount of construction required. Neither exhaust nor dust should be of a magnitude to constitute a health hazard.

Construction regulations and Mn/DOT's "Standard Specifications for Construction" outline ways to minimize any impacts from excessive dust during construction.

E. Construction Noise

The high noise levels of typical construction equipment indicate a potential noise impact. Typical construction noise levels are listed in Table 19S. No predictions of construction noise levels have been made, since it is impossible to accurately estimate the actual equipment that will be utilized at any given time.

The impact of construction noise can be minimized by restricting the hours of work and careful attention to muffler maintenance. Minnesota Standard Specifications for Highway Construction - Section 7, Subsection 1701, states in part that the contractor shall comply with all applicable laws, ordinances, regulations, orders and decrees. This includes any federal, state or local noise control regulation.

TABLE 19S
 TYPICAL CONSTRUCTION MACHINERY NOISE LEVELS *

	db(A) at 50'	db(A) at 100'	db(A) at 200'
Air Compressor	81	75	69
Backhoe	85	79	73
Concrete Mixer	85	79	73
Concrete Pump	82	76	70
Concrete Vibrator	76	70	64
Crane, Derrick	88	82	76
Crane, Mobile	83	77	71
Dozer	80	74	68
Generator	78	72	66
Grader	85	79	73
Jack Hammer	88	82	76
Loader	79	73	67
Paver	89	83	77
Pile Driver	101	95	89
Pneumatic Tool	85	79	73
Pump	76	70	64
Rock Drill	98	92	86
Roller	74	68	62
Saw	78	72	66
Scraper	88	82	76
Shovel	82	76	70
Truck	91	85	79

* Source: Traffic Noise and Vibration Manual, Illinois
 Department of Transportation, March 1977

F. Traffic

Construction work will cause some disruptions to local traffic patterns. Mn/DOT's specifications require contractors to conduct their operations in a way that will cause the least obstruction to traffic. Access to adjacent property will be maintained. Construction will be scheduled in such a manner that alternative routes can be developed.

G. Pollution Control

All applicable regulations of pollution control relating to the prevention and abatement of pollution shall be complied with during hauling and construction operations.

H. Potential Soil Impacts

Within the urban section, the West Cloquet Bypass encounters the largest percentage of organic and poorly drained mineral soils. Road construction may be more difficult and costly in the West Cloquet Bypass. In addition, a bridge crossing of the St. Louis River may require cuts and fills in the steep slopes which are adjacent to the river. Special attention to erosion control measures would be followed in this area

I. Erosion Control

Permanent, temporary and administrative controls will be used to minimize erosion. Permanent control measures include items such as replacement of top soil, seed, sod and rock riprap. Seed, sod and topsoil are used to reestablish vegetation after construction. Vegetation cover is the best permanent means of controlling and reducing erosion on large areas of exposed soils.

Temporary controls of erosion include items such as bale ditch checks, earth diversions, bale diversions, and temporary sediment basins. Temporary controls which will be included in construction plans are used at the discretion of the project engineer. Administrative erosion controls occur in the form of standard specifications, licenses, permits and requirements placed upon the contractor.

To establish vegetation in areas disturbed by construction, Mn/DOT usually requires topsoil lime (if necessary),

fertilizer, sod and/or seed and mulch, The type and rate of application of fertilizer used depends upon the nature of the topsoil.

Normally, topsoil within a construction area is salvaged and reused. When a project is being designed, existing topsoil is sampled and tested. Test results provide information on topsoil gradation and pH level, also on the content level of organic matter, phosphorous and potassium. From test information, the proper fertilizer type and application rate are found. If more topsoil is required than can be obtained by salvaging in place topsoil, topsoil borrow (topsoil obtained from a source other than the construction site) may be used.

J. Excess Material Disposal

None of the alternatives encounter large expanses of unsuitable soils and disposal should not pose a great problem.

In the event that unsuitable soils cannot be disposed of within the right of way limits, Mn/DOT has Guidelines for the Disposal of Excess Material (Technical Memorandum No. 83-11-EVN-1) to aid in determining if there are feasible and prudent alternatives to disposal of excess materials in wetlands or other environmentally sensitive areas. In brief, these guidelines allow disposal in wetland areas only where cost or engineering considerations make removal of the material to upland sites extremely impractical. These conditions are usually encountered where a highway alignment traverses large expanses of unsuitable soils.

K. Landfill

A construction impact unique to the East Cloquet Bypass in the urban section is involvement with the closed Scanlon Landfill. This landfill is located between TH 45 and the St. Louis River, immediately north of County Road 61. Two to three acres of landfill could potentially be located within the construction limits. Should this alternative be selected, extensive soil boring and testing will be conducted to determine if hazardous wastes are

present. The results of such testing may result in a reconsideration of the selected alternative.

If the landfill materials must be excavated (to create suitable subbase) the following special construction considerations must be followed:

1. All buried refuse must be disposed of in a satisfactory manner at a MPCA permitted facility.
2. All containerized (drummed) waste must be stored in a designated area until identified and a disposal plan is approved by the MPCA. Should any of these wastes be identified as a hazardous waste material, disposal must be at a hazardous waste storage, treatment or disposal facility.
3. All surface areas of the landfill disturbed during construction shall be filled, sloped (two percent minimum) and recompactd with a minimum two feet of soil cover having a maximum permeability of 2×10^{-6} cm/sec. Surface water runoff shall not be drained to areas containing waste. All disturbed areas must be revegetated.

TRANSPORTATION
IMPACTS

The Purpose and Need Section of this document lists seven transportation objectives of this project:

- 1) provide adequate level of service
- 2) improve accessibility to tourism areas of northern Minnesota
- 3) stimulate and support business expansion and long-term economic growth
- 4) provide four lane continuity
- 5) accident reduction
- 6) improve traffic flow in Cloquet
- 7) replace or improve deficient bridges

Table 20S identifies the ability of each alternative to meet the transportation objectives of this project.

TABLE 20S
TRANSPORTATION OBJECTIVES FULFILLED BY ALTERNATIVES

Objective	Urban Section	
	Build Alternative	No Build Alternative
1) Level of service		Does not meet objective
2) Tourism accessibility	Fully meets	Does not meet objective
3) Economic development	all	Does not meet objective
4) Four lane continuity	transportation	Does not meet objective
5) Accident reduction	objectives.	Partially meets objective
6) Cloquet traffic flow		Does not meet objective
7) Bridge improvement		Does not meet objective

**List of
Preparers**

VI. LIST OF PREPARERS

NAME	EDUCATION	YEARS OF EXPERIENCE	EIS RESPONSIBILITY

DISTRICT:			

Gustaf E. Peterson	U of M (Duluth)	11	Purpose and Need Energy Analysis Comments and Coordination

William C. Cary	U. Wisc. (River Falls)	11	Summary Alternatives

Ron Running	U of M (Duluth)	16	Relocation Impacts

Paul J. LaTour	BA Business and Economics	21	Project Manager EIS Editing

Mn/DOT: CO			

Frank Pafko	BS Fisheries	8	Preparation EIS Editing

Joe Thomas	BS Soil and Water Mgmt.	7	Floodplains Soils

Gerry Larson	MA	6	Social Impacts Economic Impacts Relocation Impacts Land Use Impacts Historical and Archaeological Impacts

Norm Melem	BCE	11	Air Quality Impacts

Sarma Straumanis	BS Zoology MS Biology	6	Wetlands Wildlife Threatened and Endangered species

Kevin Kotts	BS Biology BS Education	2-1/2	Wetlands

Ron Rauchle	BSCE	1	4(f) Statement

Scott Carlstrom	BS Forestry	11	Stream Modification Water Quality

NAME	EDUCATION	YEARS OF EXPERIENCE	EIS RESPONSIBILITY
John Dustman	BS Geology	3	Groundwater
Craig Churchward	BLA	7	Visual Analysis
Mel Roseen	BSCE	13	Affected Environment Construction Impacts Transportation Impacts Noise Analysis
Ken Buckeye	BA Urban Affairs MS City and Regional Planning	6	Bicycle and Pedestrian Considerations
Federal Highway Administration			
Lawrence Brown	BSCE	10	EIS Preparation and Review
Alan J. Friesen	BSCE	15	EIS Review and Approval
James W. McCutcheon	BSCE MSCE	20	Floodplain, bridge and hydraulic Review
Wallace O. Oien	BS Forestry	20	Right-of-Way Review

**Comments
and Coordination**

COMMENTS AND
COORDINATION

Public and Agency
Coordination

During the preparation of this Supplemental DEIS, coordination has been established with the following governmental units, agencies and organizations:

- City of Cloquet
- City of Scanlon
- Fond Du Lac Indian Reservation
- Cloquet Area Chamber of Commerce
- Cloquet Development & Industrial Corporation, Inc.
- Minnesota Dept. of Natural Resources *
- Minnesota Pollution Control Agency *
- U.S. Fish & Wildlife Service *
- U.S. Army Corps of Engineers *
- U.S. Bureau of Indian Affairs *

* Cooperating Agencies

Correspondence from the Cloquet Development and Industrial Corporation Inc., Fond Du Lac Reservation Business Committee, The City Of Cloquet, and the Cloquet Area Chamber Of Commerce is included in this section.

Public Hearing

A formal public hearing on the Supplement to the EIS and the location of the project will be held following the publication of the Supplement to the EIS. This is anticipated to occur during the spring of 1987



CLOQUET DEVELOPMENT & INDUSTRIAL CORPORATION, INC.

P.O. Box 231
Cloquet, Minnesota 55720

October 14, 1986

Paul LaTour
Environmental Unit Supervisor
Minnesota Department of Transportation
Duluth Headquarters - District 1
1123 Mesaba Avenue
Duluth, MN. 55811

Dear Mr. LaTour:

The Cloquet Development and Industrial Corporation wishes to take this time to express its interest and concern with the proposed Highway 33 upgrading.

We strongly feel that our economic development efforts, especially retail development, are tied to the existing Highway 33 corridor through the City of Cloquet. Should the plans to upgrade Highway 33 proceed, we are confident that as much as \$15 million can be saved by using the existing route.

Furthermore, this group concurs with the Cloquet Area Chamber of Commerce in their estimation of the negative economy that would result from any directional change of Highway 33. We also agree that the millions of dollars that have been invested would be threatened by a loss of Highway and/or tourism traffic.

From an economic development standpoint, we do not feel that any increase in new development is worth the destruction of established businesses. We believe that any location of Highway 33 other than where it is presently located would be unnecessary, uneconomical, non-environmentally sound and create a negative multi-million dollar impact on this community.

Thank you for your time and consideration. If you have any questions regarding this, please feel free to contact me.

Yours truly,

Dennis Sorenson - President
CLOQUET DEVELOPMENT AND INDUSTRIAL CORPORATION

DS:rs



CLOQUET AREA CHAMBER OF COMMERCE

P. O. Box 426, 704 South Highway 33

Cloquet, Minnesota 55720

"The Organization that Makes Things Happen"

October 23, 1986

Paul Latour
 Environmental Unit Supervisor
 Minnesota Department of Transportation
 Duluth Headquarters
 1123 Mesaba Avenue
 Duluth, MN. 55811

Dear Mr. Latour:

The Cloquet Area Chamber of Commerce has gone on record as supporting the existing Highway #33 corridor. We are concerned that our letter of 10-12-83, a copy of which is enclosed, is not on file at your office.

As a representative group, the businesses of Cloquet area concerned that the possible by-pass would mean a decrease in through town traffic and thus negatively impact the economic well being of a majority of our Highway # 33 businesses that rely on highway traffic.

Of even greater importance is the negative affect it would place on the entire Cloquet Business Community. The dollar is said to circulate or turnover seven times in a community, after it is injected from the outside. The loss of a substantial part or all of a businesses revenue would be devastating.

The Chamber of Commerce feels that it would be counter productive to develop one area at the expense of anothers demise. This, plus the fact that it is much more cost effective to keep Highway # 33 in its present location, and less likely to change the environmental balance, leads us to believe that any change in Highway # 33's location would be a multi-million dollar mistake.

Thank you for your time and cooperation in this. If you have any questions please feel free to contact me.

Respectfully,

Allen L. Pelvit - Executive Director

Respectfully,

Rick Gustafson - President

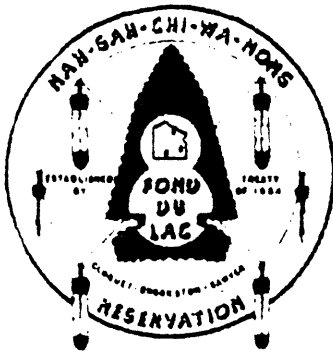
CLOQUET AREA CHAMBER OF COMMERCE

CLOQUET . . . the Area of WOOD INDUSTRIES

Potlatch

U S G
 ACOUSTICAL
 PRODUCTS
 COMPANY





FOND DU LAC RESERVATION

BUSINESS COMMITTEE

WM. HOULE, Chairman
CLARENCE "CHUCK" SMITH, Sec./Treas.
ROBERT PEACOCK, Executive Director
JAMES JACKSON, Spiritual Leader

105 UNIVERSITY ROAD
CLOQUET, MINNESOTA 55720
PHONE 1-218-879-4593

March 24, 1986

Mr. Paul LaTour
Minnesota Department of Transportation
1123 Mesaba Avenue
Duluth, Minnesota 55802

Re: Proposed Western Alternate Corridor for State Highway 33

Dear Mr. LaTour:

Thank you for taking the time to meet with the Fond du Lac Reservation Business Committee and presenting the routing alternatives and procedures for developing State Highway 33.

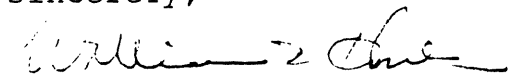
After considering the procedures and policies presented by your department, the Fond du Lac Reservation Business Committee wishes to support the Western alternative route around the City of Cloquet. The Reservation Business Committee is concerned about the existence of possible archeological sites of Indian origin, but we are convinced that we can resolve these problems to our mutual satisfaction.

The Reservation Business Committee is the authorized governmental body for all civil Tribal affairs within the boundaries of the Fond du Lac Reservation, and we are willing to assist MnDOT by providing the local authority for condemnation of land where it is deemed appropriate.

The Reservation Business Committee feels the western corridor is the best corridor for the State of Minnesota since it involves the least costly construction and relocation alternatives.

Please keep us informed as the construction development continues, and we will provide input into this process as needed. If you need any additional information from us, please feel free to contact either myself or Gary Fields in the FDL Planning Division.

Sincerely,


William J. Houle, Chairman
Fond du Lac Reservation
Business Committee

THE CITY OF CLOQUET, MINNESOTA

508 CLOQUET AVENUE 55720

WILLIAM J. SCHLENOGT
CITY PLANNER
879-2507

PLANNING DEPARTMENT
PLANNING
ZONING ADMINISTRATION
BUILDING DEPARTMENT

September 12, 1986

Gerald Larson
Minnesota Department of Transportation
704 Transportation Building
St. Paul, MN 55155



Dear Mr. Larson:

This letter concerns the current draft Environmental Impact Statement process for the upgrading of T.H. #33 within the City of Cloquet. This will update statements made for the initial EIS for the entire T.H. #33 project, which were included in a letter dated October 11, 1983 addressed to Paul LaTour in Duluth.

The official position of the City of Cloquet continues to favor upgrading the existing highway corridor through the City. It is recognized that this will necessarily entail some temporary disruption of traffic during construction, and require improvements for pedestrians, frontage roads, new bridging across the river, etc. However, the negative aspects of upgrading the corridor are far outweighed, in our opinion by the positive results to be expected. In addition, the negative impacts of a bypass of the City in terms of altered traffic patterns, disruption of land use plans and patterns, and much higher costs to complete the project, we feel dictate the existing corridor as the preferred alternative.

The westerly bypass would be particularly disruptive of land use patterns and plans for the City. As can be seen from the attached Zoning Map of the City, the projected route of the westerly bypass passes through areas that are zoned for rural and urban residential uses. Long range plans of the City identify a moderate expansion of urban, low density residential uses in the area south of Big Lake Road and to the southeast and east of Pinewood Drive. The historical aftermath of a major highway bypass tends to be a proliferation of highway oriented commercial and higher density uses which, in Cloquet's case, would be highly disruptive. Even though the City has zoning control, the pressure for such change and the impact upon existing land uses would be tremendous.

You may be aware of the fact that the City has recently completed a long range redevelopment plan for Dunlap Island, which lies in the St. Louis River where T.H. #33 crosses. While not yet formally adopted by the City, such is expected soon. The plan anticipates the traffic to be generated by an upgraded highway, and proposes replacement of the current bridges with a single 4 lane structure spanning the entire river with minimum or no support structures on the island itself. I believe I have forwarded a copy of this plan to the Duluth District Office, but if you have not yet seen it I shall be happy to submit a copy at your request.

CLOQUET . . . *the City of* WOOD INDUSTRIES

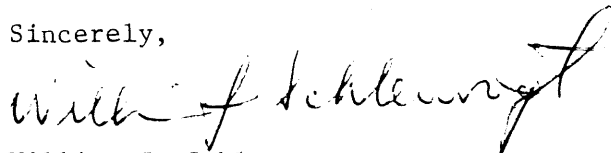
AN EQUAL OPPORTUNITY EMPLOYER

Gerald Larson
September 12, 1986
Page 2

In conclusion, let me reaffirm the statements I made in my October 11, 1983 letter. I firmly believe that when the study is completed, all of the environmental, economic, land use and other related data will support a decision to upgrade the existing corridor.

If you should need any additional information or testimony regarding this matter, please do not hesitate to contact me.

Sincerely,



William J. Schlenvogt
City Planner

WJS/lmj

Enclosure

cc: John Sandahl - Duluth District Engineer, MN/DOT
James Prusak - Cloquet City Engineer
Lawrence Gustafson - Cloquet City Clerk-Treasurer
Mayor & City Council - City of Cloquet
Planning Commission - City of Cloquet

Preliminary 4(f) Evaluation

INTRODUCTION

The TH 33 project discussed in this document is the upgrading of the present two-lane roadway to a four-lane roadway, from I-35 to the Morris Thomas Road. This is known as the Urban Section which includes the Cities of Cloquet and Scanlon. Several alternatives for perpetuating the four-lane through or around the Cloquet area have been proposed and are the focus of this document. Each alternative and its impacts to Section 4(f) lands will be discussed.

Section 4(f) land includes publicly owned parks, recreation areas, wildlife and waterfowl refuges of national, state or local significance. Several areas of this type are encountered within the proposed alternative corridors and are discussed below.

PARKLAND DESCRIPTIONS

Parklands discussed in the following section can be located on Figure 14S.

1. Pine Valley Park

Pine Valley Park is located approximately one mile from downtown Cloquet, adjacent to and west of existing TH 33. The park is 154 acres in size with an additional 10 acres to the north, housing the Pine Valley Ice Arena. The existing facilities consist of: two ski jumps, two downhill ski runs, a chalet, two and one half miles of cross country ski trails, a picnic area and an indoor ice skating rink. It is the host of high school athletic competitions. The park is owned by the City of Cloquet which currently does not have any future modifications planned for it. The park is accessible from Armory Road. A unique geological feature found in Pine Valley Park is an esker, which is a ridge of gravel and sand deposited by the waters of a melting glacier.

Located on the northwest corner of Pine Valley Park is the City of Cloquet Water Works. This facility contains a pumping house, water reservoir and a maintenance shed. It is accessible from Spring Lake Road.

2. Pinehurst Park

Pinehurst Park is located adjacent to and

west of existing TH 33, south of the TH 45 intersection. The park is approximately 21 acres in size. It's facilities consist of: two outdoor tennis courts, one baseball diamond, children's slides and swing sets, a small amphitheater and a very elaborate pool. The pool is the main focal point of the park and is probably the reason it's the busiest of Cloquet's parks. The park contains some open space which is used for special events, such as county fairs. The City of Cloquet owns the park and presently has no future modifications planned for it. Current access is from existing TH 33.

3. Veterans Park

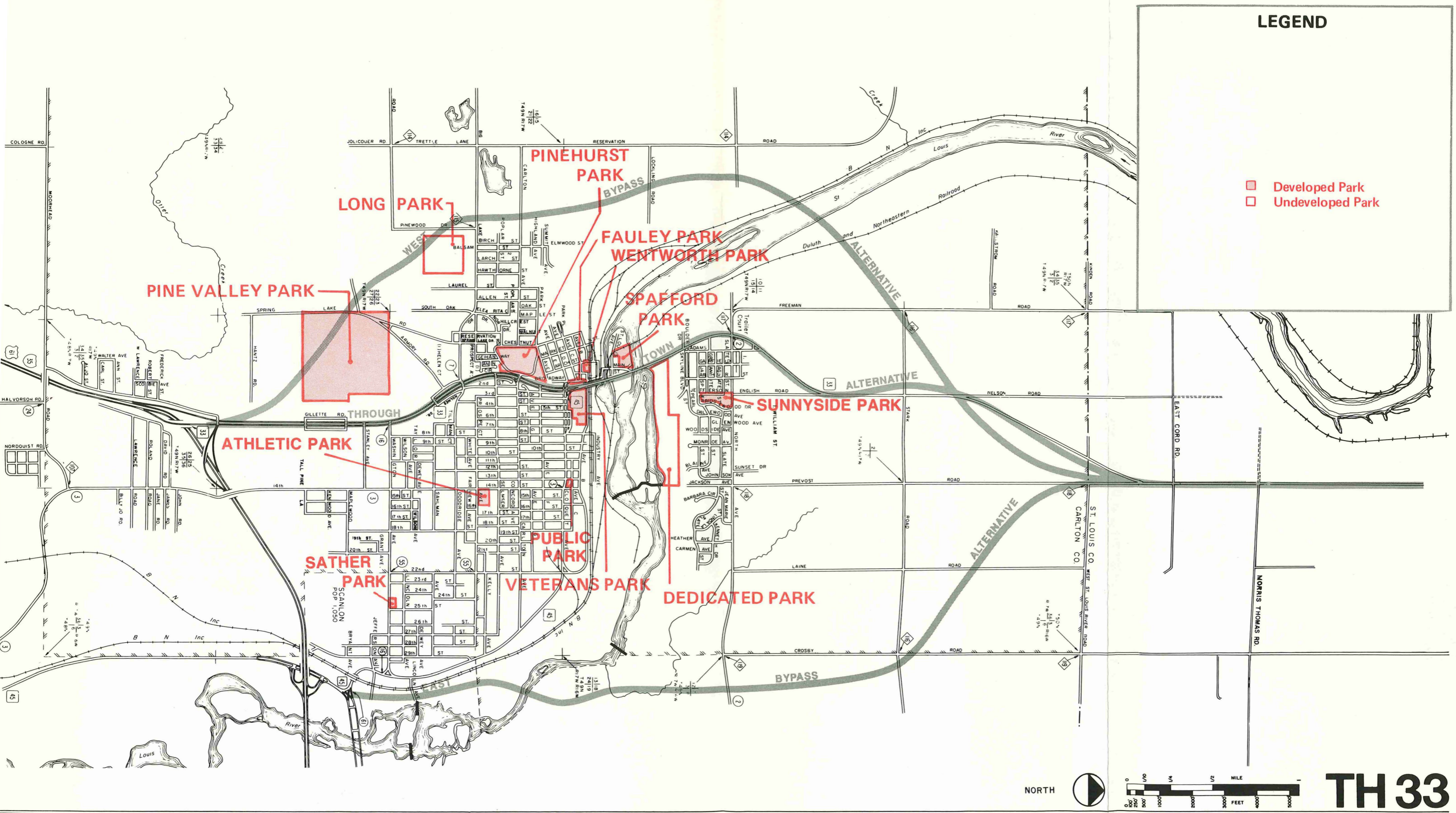
Veterans Park is located in the northeast quadrant of the intersection of TH 33 and TH 45. The park is approximately 12 acres in size. It's facilities consist of: one baseball diamond, a pond and a log shelter housing several picnic tables. The park is owned by the City Of Cloquet and at the present time, no future improvements are planned. Access to Veterans Park is via TH 45.

4. Fauley Park

Fauley Park is located in the northwest quadrant of the intersection of TH 33 and TH 45. The park is very small, being only about 1.5 acres in size. It contains an old steam locomotive, a monument of the historic 1918 Cloquet fire and one picnic table. Without the conventional "park" facilities, it serves as a brief wayside rest stop. During development of a safety intersection improvement project, FHWA determined that this park was a non-significant 4(f) parcel. The Minnesota Department of Transportation owns the park property, but the City of Cloquet administers and maintains it. At the present time, the city has no plans for future improvements to it. Access is from Broadway Avenue.

5. Potlatch
Dedicated Land

Located north of the St. Louis River and east of TH 33, is a tract of land that the Potlatch Corporation has deeded to the City of Cloquet as parkland. The area is approximately 80 acres in size. It is undeveloped and does not possess any vehicular access. However, a pine

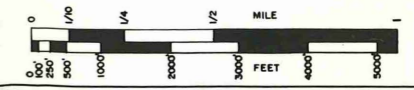


LEGEND

- Developed Park
- Undeveloped Park

Figure 14s: PARKLANDS

NORTH



TH 33

Supplemental EIS

Urban Section

plantation exists adjacent to TH 33. The City of Cloquet has no immediate or future plans for the site.

6. Long Park

Long Park is located approximately 1.5 miles from downtown Cloquet, south of CSAH 7 and east of Trettle Lane. This tract of land, approximately 21 acres in size, was originally donated to the City of Cloquet by several private landowners. The transfer of deed specified that this tract be used as a park or tree plantation. To this day, the land remains undeveloped with the city having no future development plans for it.

7. Spafford Park

Spafford Park is located on Dunlap Island in the St. Louis River, west of existing TH 33. It is approximately 7 acres in size and contains: a boat launching site, a scenic overlook of the St. Louis River, primitive camp sites for tenters, camping facilities for approximately 50 recreational vehicles and shower and toilet facilities. Because of the nature of the facilities found in the park, it is mainly used by tourists. The City of Cloquet owns the park. It plans on renovating Dunlap Island with only minor cosmetic changes to Spafford Park. The park would remain as open space and be utilized for passive recreation and municipal events. Access to it is currently from existing TH 33.

HISTORICAL SITE
DESCRIPTION

The following discussion of historical sites in the TH33 Urban Section is based upon an inventory of known historical sites done by the Minnesota Historical Society and the Carlton County Historical Society. An archaeological survey of the alternative alignments by the State Highway Archaeologist is currently underway. The results will be reported in the Final Supplemental EIS. Refer to Figure 15S for locations of the following historic sites.

1. Dunlap Island

Dunlap Island is located in the middle of the St. Louis River, bridged by TH 33. It has been identified by the Minnesota Historical Society as having historical significance. The island is approximately 34 acres in size with one third being industrial and commercial property, one

third vacant, undeveloped land, and one third park and roadway. Only about one half of an acre is used as residential. The vacant undeveloped land lies to the east of TH 33 and the industrial, commercial and park land is found west of TH 33. The City of Cloquet has decided to redevelop the entire island into a walk through historical site devoted to Cloquet's past. The final recommended redevelopment plan includes: restoring existing buildings of historical significance, including the Northeastern Hotel; recreating scenes of other historical events, including an Ojibwa Indian Village and a Voyageur River Camp. The plan also recommends that the new four lane bridge proposed for the through town corridor not come in contact with the island for foundation support or landings of any type. The city owns most of the island's land area, including Spafford Park and the undeveloped east end.

2. Upper Northern Sawmill

The Upper Northern Sawmill Company Site is located in the NW 1/4 of the SE 1/4 of Section 15, Township 49 N, Range 17 W. Constructed in 1919, this is the site of one of the most important lumber mills in Cloquet. It is recognized for it's local historic significance, however nothing of real visual importance remains. The site is presently used as a staging area for logs and materials. The original planer building is in tact, but is of little historic significance in and of itself, and is currently used as a warehouse by the Conwed Corporation of Cloquet.

3. Cloquet Boom House

The Cloquet Boom House and Sorting Sheds Site is located in the SW 1/4 of the SE 1/4 of Section 10, Township 49 N, Range 17 W. Constructed in the late 1800's, this site is recognized for it's significance by the local authorities. Found at the northern end of Posey Island, the site was the starting point of a series of log sorting pens that existed for approximately one mile down the St. Louis River. The purpose of these pens was to sort logs floating downstream cut by lumber camps located upstream. The next step was to bundle them together, and send them to the correct sawmills

LEGEND

- A Lindholm House**
- B Frank Lloyd Wright Gas Station**
- C Northern Lumber Co. Boarding House**
- D C.N. Nelson Lumber Co.**
- E Northeastern Hotel**
- F Northern Lumber Co. Upper Mill**
- G Cloquet Boom House & Sorting Sheds**
- H Cloquet Lumber Co. Water Power Mill**
- I Johnson - Werrworth Lumber Co.**
- J Northern Lumber Co.**
- K Cloquet Lumber Co. Steam Mill**
- L Woman's Portage**
- M Knife Portage**
- N Brooks - Scanlon Mill Complex**

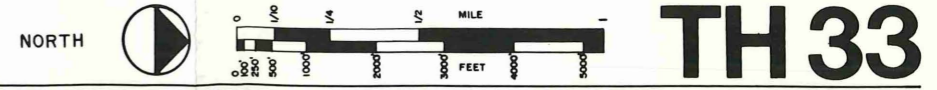
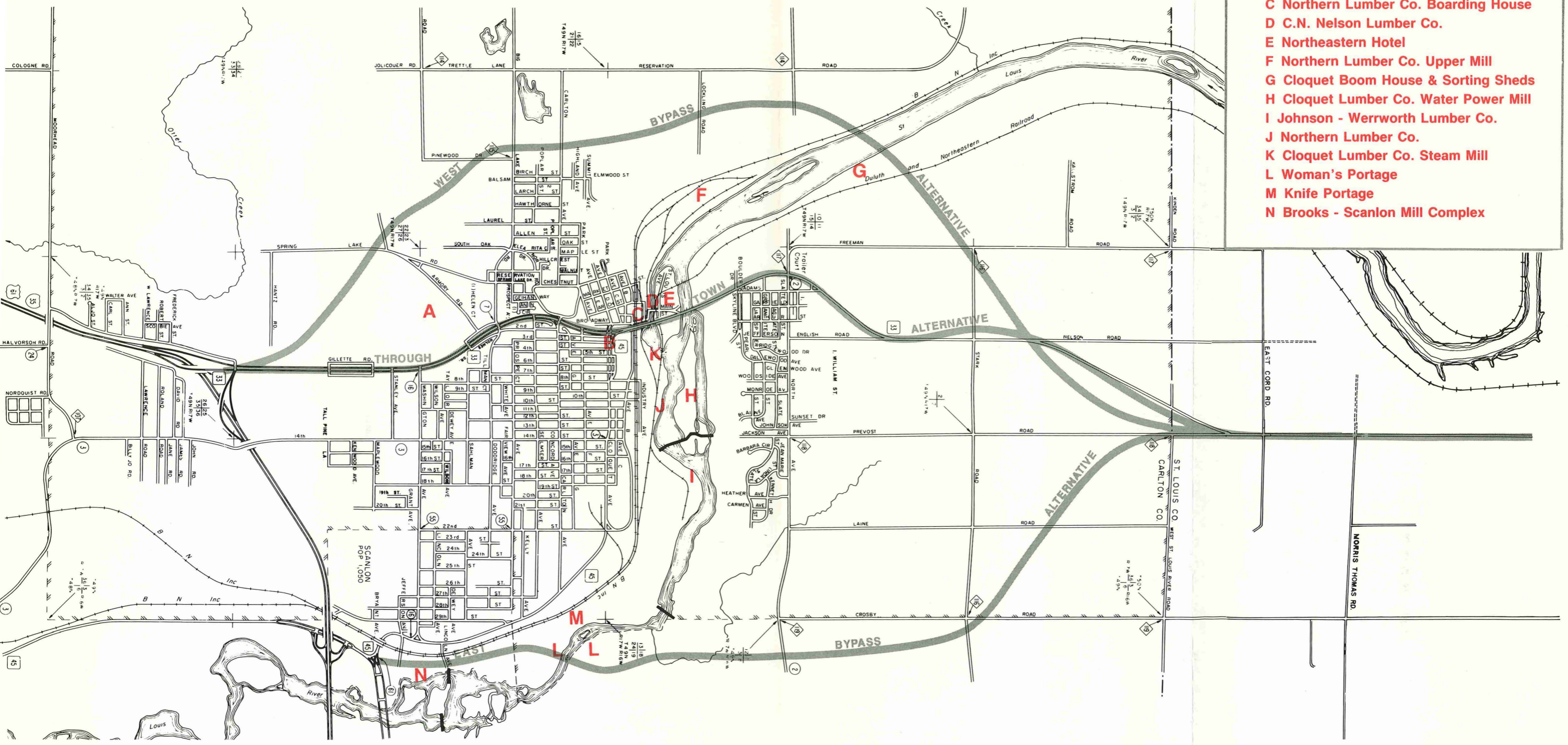


Figure 15S: HISTORIC SITES

located downriver. All that remains of the original operation are ruins of the log sorting pens, consisting of rock and wood pilings. The island has no access to the main land, therefore the site is not open to the public.

4. Lindholm House The Lindholm House is located in the NE 1/4 of the NE 1/4 of Section 26, Township 49 N, Range 17 W. The site is of local historic significance only. It is located approximately 1/4 mile from the existing TH 33 alignment and is found in a residential area of Cloquet. The site is used as a residence itself, and consequently is not open to the public.
5. Phillips "66" Station The Phillips "66" Service Station is located at the southeast corner of the junction of TH 33 and TH 45 in Cloquet. The station was designed in 1958 by the late Frank Lloyd Wright and is the only gas/service station designed by Wright. The site has retained it's original intended use as a gas/service station. Unlike the other historic sites encountered, the Phillips "66" Service Station is on the National Register of Historic Places.
6. Northern Lumber Company The Northern Lumber Company Site is located in the NW 1/4 of the SW 1/4 of Section 14, Township 49 N, Range 17 W. Constructed in 1880 and owned by C. N. Nelson until 1896, the Northern Lumber became one of the "milling giants" of Cloquet. The only remnants of the original company are the mill building and the sawmill furnace, of which, the mill building has been completely renovated and is currently occupied by the Conwed Corporation of Cloquet. The site is recognized as historical by local authorities only. It is not open to the public.
7. Northeastern Hotel The Northeastern Hotel is located in the NE 1/4 of the SW 1/4 of Section 14, Township 49 N, Range 17 W, on Dunlap Island. The Hotel was constructed in 1885, containing sleeping accommodations for twenty visitors. A tavern was constructed on the ground level of the hotel. In 1904 the hotel and tavern burned to the ground, however it was

rebuilt the same year and stands to this day. Today, the hotel continues to serve it's original purpose along with the tavern. The site is listed on the National Register of Historic Places. The site can be visited by the public with access provided from Main St. on Dunlap Island.

8. Cloquet Steam Mill

The Cloquet Steam Mill Company Site is located in the NW 1/4 of the SW 1/4 of Section 14, Township 49 N, Range 17 W. Constructed in 1878, the Cloquet Steam Mill was probably the first lumber mill in the Cloquet area. It also became largest lumber mill in the area. The mill closed in 1926 and the site has been abandoned ever since. All that remains of the mill is the stone foundation. The area is overgrown with weeds and brush and is not open to viewing by the public. It is recognized by the local authorities as a historical site.

9. Johnson-Wentworth Sawmill

The Johnson-Wentworth Sawmill Company site is located in the NW 1/4 of the SW 1/4 of Section 13, Township 49 N, Range 17 W. This sawmill was constructed in 1896 and was another of the many lumber mills in the Cloquet area. Nothing remains of the sawmill or any of the other buildings, not even ruins. Because of this, the site is not open to viewing by the public. It is considered historic only by the local authorities.

10. Water Power Sawmill

The Water Power Sawmill site is located in the NW 1/4 of the SW 1/4 of Section 13, Township 49 N, Range 17 W, on Power Island. This sawmill was operated completely by water power generated from the St. Louis River. The concrete dam, water sluice way and some ruins of the stone mill are all that remain of the site. The entire island is grown over with brush and small trees. It is considered historic by the local authorities and with no access to the island, is not open to visits by the public.

11. Knife Portage

The Knife Portage was a trail used by early travelers and traders along the St. Louis River to transport canoes and supplies around the Knife Falls. It began

approximately two hundred feet south of Fortress Island, on the west bank of the river (in the NE 1/4 of the NE 1/4 of Section 24), followed a northwest heading for approximately one mile, and terminated at the upper end of the old Knife Falls (in the SW 1/4 of Section 13), which is the present Johnson-Wentworth Sawmill site (Figure 14S). Of the trail's original length of approximately one mile, only about four hundred yards remain at its western end. Because very little remains of the trail and it is virtually impossible to retrace, the site is not open to the public. Nevertheless, it is recognized as historical by the local authorities.

12. Woman's Portage The Woman's Portage was another of the many trails used by the early travelers and traders along the St. Louis River to transport their canoes and supplies around obstacles and difficult currents. The trail was located between Maple Island and Fortress Island, along both the east and west banks of the river. The exact location has not been determined because of the vagueness of the original information. However, very little if anything remains of the portage passage and is not open to the viewing public. The site is still recognized as historical by the local authorities.
13. Brooks-Scanlon Mill Complex The Brooks-Scanlon Mill Complex is located near the St. Louis River in the NW 1/4 of the NW 1/4 of Section 30, T49N, R16W. The Brooks-Scanlon Lumber Company operated at this location from 1901 to 1908. Remnants of massive concrete building foundations, piers and footings of the mill complex remain at the site. This site is potentially eligible for nomination to the National Register of Historic Places. The State Historical Preservation Officer will furnish additional information when the archaeological survey is completed.

ALTERNATIVES AND THEIR IMPACTS

- A. Introduction Three alignments were analyzed as the primary alternatives in the urban section of the TH 33 project, the West Bypass,

Through Town, and East Bypass (Figure 14S). The east Bypass is analyzed in the Avoidance Alternative section.

B. West Cloquet Bypass

The West Bypass begins at the junction of TH 33 and I-35, circles westerly and continues northward, just within the Fond Du Lac Indian Reservation, then turns easterly crossing the St. Louis River and rejoins existing TH 33 approximately 1.5 miles south of the Morris Thomas Road (Figure 14S). The impacts to Section 4(f) lands by the West Bypass are as follows:

1. Pine Valley Park

The southwest corner of Pine Valley Park would be severed by the West Bypass alternative (Figure 14S). A westerly shift of this alignment to avoid Pine Valley Park was considered. Highway geometric standards precluded the West Bypass Alternative from avoiding this park. The alignment configuration requires a right-of-way width of 375 feet, resulting in a total taking of 20 acres. In addition, an area of 17 acres would remain detached from the rest of the park without adequate access to it. In all, approximately 37 acres would be lost from the park by this bypass. Of the park's two and one half miles of cross country ski trails, 900 feet would be affected by the highway right-of-way. Access to the park from Armory Road will not be affected. Analysis of air quality data revealed that no significant impacts are expected, with air quality standards being maintained. Noise levels were analyzed on the west bypass alignment but not in the immediate vicinity of the park. However, the same general increase in noise level over the present noise levels is expected along the entire length on the west bypass alignment. The entire area is largely residential and quiet, being removed from the downtown area and the mainstream of traffic. The pleasant aesthetic view of the area as well as its serenity will also be interrupted because the alignment will be elevated above the area, as its planned placement is along the top of the esker, meaning that it will be seen and heard for great distances.

The City of Cloquet has several water

supply wells in the area around the park. Concern of contamination of these wells by Highway runoff has been expressed.

2. Long Park

The southwest corner of Long Park would be impacted by the West Bypass. Approximately 0.7 acres of land would be lost to this parcel. Since the park is undeveloped, no facilities would be lost. No significant air quality impacts are anticipated and noise impacts would be similar to those for Pine Valley Park. Construction of the West Bypass could improve access to this park.

3. Upper Northern Sawmill

The Upper Northern Sawmill site is approximately 0.5 miles from the proposed alignment of the West Bypass (Figure 15S). Because of the significant distance to the site, the alignment will not have any negative impacts on it.

4. Cloquet Boom House and Sorting Sheds

The Cloquet Boom House and Sorting Sheds site is approximately 0.3 miles from the proposed alignment of the West Bypass (Figure 15S). Because of the distance to the site and the fact that it is not open to the public, the alignment will not have any negative impacts on the site.

C. Through Town Corridor

The Through Town Alternative follows the existing TH 33 alignment; beginning at the junction of I-35, proceeding north through the city of Cloquet and continuing to the junction of TH 53 (Figure 14S). The Portion of existing TH 33, from I-35 to TH 45, is already four-lane roadway with only minor improvements planned for it, signalization, channelization, etc. The impacts to Section 4(f) lands by the Through Town alternative are as follows:

1. Pinehurst Park

The existing alignment of TH33 in the area of Pinehurst Park is presently four-lane. The result is that no land will need be taken from the park for the corridor. Access to the park from existing TH 33 will not be affected. Air quality will not be affected at all because traffic currently used this alignment. However, as the future traffic levels increase, impacts to air quality will increase accordingly. The noise impacts follow much the same pattern as

the air quality impacts. Noise analysis equipment used near the entrance to the park found noise levels to be higher than what would have been preferred (see P. 110 of the FEIS). The levels is expected to increase with time, due to the increase in future traffic. However the increase is expected to be less than 3 db(A) which is barely perceivable to most people. With the increase of traffic through this area and this park being the busiest in the city, interest was expressed in a pedestrian bridge over TH 33 to accommodate the large amount of pedestrian traffic.

2. Fauley Park

The actual change from two to four lanes begins at the junction of TH 33 with TH 45. The proposed alignment addition adjacent to Fauley Park is shifted to the east, resulting in very minimal impact to the park (Figure 14S). The addition of a right turn lane and the upgrading of the turning radius onto Broadway Avenue causes only slight encroachment into the park. None of the facilities at the park will be directly affected by the encroachment. However, several trees will need to be removed. Air quality will remain at it's present state because traffic currently uses this route. Naturally with an increase in future traffic, there will be an increase in the concentration of pollutants with a lowering of the air quality. Noise level meters were set up near the locomotive. The levels recorded were found to be higher than what is preferred in such an urban area (p. 110, FEIS). The future noise levels are expected to increase, but the increase is slight enough so as not to be noticeable by most people. Access to the park will remain from Broadway Avenue, with the sidewalk being replaced behind the curbline. During development of an intersection improvement project, the FHWA determined that this Mn/DOT Wayside was a non-significant 4(f) parcel.

3. Veterans Park

The additional two lanes of the TH 33 Through Town Alternate shift alignment east of the existing two lanes in the vicinity of Veterans Park (Figure 14S). The proposed lane and bridge construction

will take place within the right-of-way limits of the Minnesota Department of Transportation and will not infringe into the parkland. Facilities at the park will remain in tact with the exception of the removal of several trees along the inslope of the present roadway. Access from TH 45 will remain unchanged. Air quality will not be affected because, as in the previous two cases, traffic is currently using this route. Future air quality is expected to decrease somewhat with the increased traffic flow. Noise impacts for Veterans Park are the same as for Fauley Park by the fact that they are across the existing alignment from each other.

4. Spafford Park

Spafford Park, like the other parks along the Through Town Alternate, will not be directly impacted by the proposed Through Town alignment. The two additional lanes will be placed east of the existing roadway and no encroachment into the park will be needed. The access to the park from TH 33 will be maintained and improved with larger turning radii and curb and gutter. Air quality will not change from its present condition. noise level meters were set up in the campground area of the park. The measured levels were very close to the preferred levels. Future noise levels are expected to increase by a small amount that will not be perceptible to most people.

5. Potlatch
Dedicated Land

The land dedicated by the Potlatch Corporation is directly impacted by the Trough Town Alternate. The additional two lanes are located to the east of existing TH 33 thereby removing approximately one acre from the 80 acre tract of land. The site is without facilities and is undeveloped. Being that no plans have been made for any future improvements to it, the impacts of the removal of this area are very minimal. A small number of trees may have to be removed from the pine plantation near the road. In addition, with no facilities on the site, air and noise impacts are also kept to a minimum. The air quality issue is the same as at the other parkland sites, with no change from it's present condition. Noise level meters were not set up in the

immediate area of this site. However, it would follow very closely with the other parklands in that future noise levels are not expected to be much higher than present noise levels, which are presently higher than would be preferred.

6. Dunlap Island

The State Historic Preservation Officer is currently conducting studies to determine if the entire Dunlap Island is to be considered historic, or if only certain locations on the island are historic. The city of Cloquet is planning to develop Dunlap Island in the future. The portion of Dunlap Island directly impacted by the Through Town Corridor is currently undeveloped. Two additional lanes will be located east of existing TH 33 on Dunlap Island. The width of the proposed alignment will be approximately 40 to 50 feet greater than the existing, resulting in a total taking of about 0.9 acres of the 8 acre area east of TH 33. The air quality on the island is not expected to be altered a great deal from it's present state. In fact, the island is very open and more subject to wind currents along the river thereby bringing in fresh, clean air. Noise levels currently exceed preferred levels. It is expected that the future noise levels will not increase significantly. It has not been determined whether access to the island will be provided from TH 33 or from an alternative route. The bridge connecting the island and the remainder of the city will be designed with an architectural scheme that will compliment any improvement to the island. Because of the grade separation between the roadway and the island, the bridge and consequently the traffic will probably be seen from many areas of the island.

7. Lindholm House

The Lindholm House is approximately 0.3 miles from the proposed alignment of the Through Town Alternate (Figure 15S). The alignment will not have any negative impacts on the site because of the considerable distance to it and also because the traffic currently uses this existing route.

8. Phillips "66" Station
Although the Phillips "66" Service Station is located adjacent to the proposed Through Town Alternate alignment (Figure 15S), it will not be directly impacted because the roadway next to it is currently four lane. This means that no land acquisition will be needed from the site. Traffic currently uses TH 33 which means that the site is currently exposed the air, noise and other impacts associated with close proximity to traffic. The future impacts will increase as the traffic increases. An upgraded intersection with TH 45 may have positive aspects for the station because of the more free flowing traffic which will result.
9. Northern Lumber Company
The Northern Lumber Company site is approximately 0.25 miles from the proposed alignment of the Through Town Alternate (Figure 15S). The alignment will not have any negative impacts on the site because of the distance to it and the fact that it is not open to the public anyway.
10. Northeastern Hotel
Although the Northeastern Hotel is located adjacent to the proposed alignment of the Through Town Alternate (Figure 15S), it will not be significantly impacted because the two additional lanes needed will be placed east of the existing roadway, with the area to the west left intact. Acquisition of land from the site will not be needed, and with traffic currently using this route, the site is already subjected to the noise, air and other impacts associated with traveled roadways. These impacts are expected to increase with the increase in future traffic volumes.
11. Cloquet Steam Mill
The Cloquet Steam Mill is located approximately 0.3 miles from the proposed alignment of the Through Town Alternate (Figure 15S). This Alternative will cause no impacts to this site.
12. Johnson-Wentworth Sawmill
The Johnson-Wentworth Sawmill is located approximately 0.75 miles from the proposed alignment of the Through Town Alternate (Figure 15S). This alternative will cause no impacts to this site.

13. Water Power
Sawmill

The Water Power Sawmill Company site is located approximately 0.75 miles from the proposed alignment of the Through Town Alternate (Figure 15S), on Water Power Island. This alternative will cause no impacts to this site. From the roadway will buffer the site from any negative impacts associated with traffic.

D. East Cloquet
Bypass

The East Bypass begins at the junction of TH 45 and I-35, proceeds northward in a direction parallel to TH 45, crosses the St. Louis River, and continues northward to the junction of Stark and Crosby roads. From there, it angles and follows a northwest heading to where it intersects existing TH 33, near the north St. Louis-Carlton County line (Figure 14S).

This alternative was originally developed during project scoping as the alternative that avoided Section 4(f) impacts. Well into development of this Draft Supplemental EIS the SHPO informed Mn/DOT of the discovery of a potentially significant historic site. This is discussed below.

1. Brooks-Scanlon
Mill Complex

The alignment of the East Bypass Alternative will directly impact the West end of the Brooks-Scanlon west end of the Mill complex (Figure 15S). This alternative will affect the remnants of the mill pond, dressed lumber sheds, original rail line and the mill boarding house. Depending upon construction limits, this alternative would likely impact remnants of the Planing Mill building and the company doctor's office. Further information will be forthcoming in the report of the State Historic Preservation Officer.

2. Woman's Portage

Although the exact location of the Woman's Portage is not known, it does possess a high potential for impact by the East Bypass. From Figure 15S, it can be seen that the proposed alignment is located very close and parallel to the river within the area of the portage. The western trail of the portage would be impacted the greatest from this alternative. The eastern portion could be affected at it's northern end, if in

fact, it extends beyond the point where the alignment crosses the river. Because almost nothing remains of the portage, and the site has not been established for site seeing, any impacts to it will be virtually negligible.

3. Knife Portage

The Knife Portage is located approximately 1/6 mile from the proposed East Bypass alignment (Figure 15S). The portage trail follows a northwest direction away from the alignment, and therefore no land taking will be required. The other impacts associated with a highway and it's construction (air, noise, aesthetics, etc.) will be negligible because nothing remains of the original portage except approximately 1/4 mile of it's extreme western end.

E. Summary

The following is a summary of direct impacts to section 4(f) lands from the various alternatives. The West Bypass Alternative will directly impact the undeveloped Long Park and severely impact Pine Valley Park. The Through Town Alternative will directly impact Fauley Park--a non-significant Mn/DOT wayside, Dunlap Island--a potentially significant historic site, and Potlatch dedicated land--an undeveloped park. The East Bypass Alternative will directly impact the Brooks-Scanlon Mill Complex--a potentially significant historic site.

AVOIDANCE ALTERNATIVE AND ITS IMPACTS

A. Introduction

The only alternative that avoids impacts to Section 4(f) lands is the No-Build Alternative. The following is a discussion of this alternative:

B. No-Build Alternative

The No-Build Alternate utilizes the existing TH 33 corridor and consists of improvements such as: replacing some road surface, widening shoulders, constructing right turn lanes, extending culverts, upgrading intersections, and some grading work. Considered compatible with the No-Build Alternative, a project to improve the intersection of TH33 and TH45 in Cloquet is scheduled for construction in 1987. This project will have minor impacts to Fauley

Park. During development of this project, FHWA determined that this Mn/DOT wayside was a non-significant park. Therefore section 4(f) does not apply. Impacts of the No-Build Alternative are primarily transportation related. Selecting the No-Build Alternative will not fulfill the objectives of the TH 33 project. This will result in an undesirable traffic level of service, reduced tourism accessibility and potential for economic development, lack of four lane continuity in the transportation system, continued problems with traffic safety and traffic flow within Cloquet and continuation of substandard bridges across the St. Louis River.

MITIGATION

A. Introduction

At this stage of project development, a preferred alternative has not been selected or designated, nor has a detailed highway layout been developed. As a result, it is not known which property protected under Section 4(f) will be impacted. Neither is the precise nature of any impact known. It may be possible to avoid all Section 4(f) involvement. This will not be determined precisely until the selection of a preferred alternative, which will take place following the circulation of this document, and the public hearing. Therefore, the following text is a general discussion of the types of mitigation which are generally and typically used in the event of impacts to land protected under Section 4(f).

B. Avoidance

The ideal is to avoid property protected under Section 4(f). Avoidance is always the first consideration whenever Section 4(f) land is encountered on a highway project. Avoidance alternatives which avoid the resource are always preferred where prudent and feasible.

C. Minimization of Impact

If impact to the Section 4(f) resource cannot be avoided, it may be possible to reduce the impact through a variety of measures. These typically include, but are not necessarily limited to, the following measures.

It may be possible to provide land to replace that which is taken for the highway improvement. This option is generally more suited to the case where a relatively large tract of land is required. Many highway improvements result in the acquisition of only very minor amounts of public parkland. In such a case obtaining replacement land adjacent to the park may not be possible. It may also be possible to effect certain design changes in the vicinity of the park, or the right-of-way may in other ways may be reduced in width, thereby reducing the land needed from the resource. In the case where developed facilities are impacted, these would normally be constructed anew, or moved to another part of the park. This might include play structures, or tennis courts, for instance. Special treatments near or in the park may be introduced to reduce impact. This might include plant or fence screenings to reduce visual impact. Walls or earthen mounding may be included in project design to reduce noise impacts. Safety features, such as guardrail or sidewalks may be used at appropriate locations. In some cases pedestrian crossing signals or pedestrian bridges to the park may be warranted. In all cases fair monetary compensation is provided.

In the case where the Section 4(f) impact is to a resource of historic or archaeological significance, other mitigation may be used. This could include the physical moving of the resource, e.g. a bridge or R.R. Depot. If preservation in-place is not warranted, photographing and documenting the resource would be a typical mitigation measure.

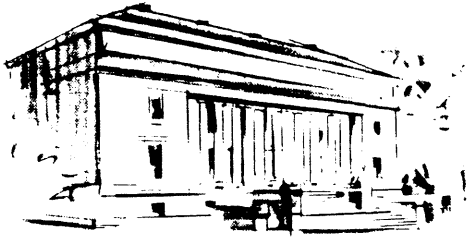
In the present case, these and other measures, as appropriate, will be evaluated if it becomes apparent that the designated preferred alternative will impact any resource protected by the provisions of Section 4(f).

COORDINATION

Mn/DOT has requested the State Historical Preservation Officer to investigate all historical and archaeological sites that would be located within the three location alternatives in the vicinity of the City of Cloquet. This coordination process dates back to March 20, 1979 and continues to date. (See letters dated March 20, 1979, April 20, 1984 and November 5, 1986)

In addition Mn/DOT has had coordination with the U.S. Department of the Interior with reference to park lands that may be affected by one of the location alternatives and historical properties that may be affected. (See letter dated December 3, 1984)

Mn/DOT has also had telephone and personal contact with the City of Cloquet Park Department and City Planning Department in regard to park lands located in Cloquet that may be affected by one of the three location alternatives.



MINNESOTA HISTORICAL SOCIETY

690 Cedar Street, St. Paul, Minnesota 55101 • 612-296-2747

March 20, 1979

Mr. C. P. Kachelmyer
Preliminary Design Engineer
Department of Transportation
Room 604 - Transportation Building
Saint Paul, Minnesota 55155

Dear Mr. Kachelmyer:

RE: S.P. 0905.0906/6911 (TH33)
Minn. Project F 073-1 ()
From I-35 South of Cloquet
To TH 53 at Independence
Upgrading & Possible Relocation
Carlton & St. Louis Counties

MHS Referral File Number F396

The Trunk Highway Archaeologist, per your request for a record search and overview for the above referenced project, has submitted the following information. Our office finds this data to be an accurate historical and archaeological summary of the area in question. In addition, we concur with the recommendation that a preliminary archaeological assessment (including sampling surveys) be implemented for the area.

Archaeological

To date, no archaeological sites or data have been recorded within the study area. However, few if any, systematic archaeological surveys have been conducted in this region.

Historical

A review of Vol. III of the Annual Preservation Program has indicated that then historic sites and structures have been recorded within the study area at the time that report was prepared. All of these sites are located within the city of Cloquet and include:

1. Dunlap Island
2. Phillips "66" Station
SE Corner, Cloquet Avenue & Hwy 33
Cloquet
3. Cloquet Boom House and Sorting Sheds Site
SW, SE, Sec. 10, T. 49, R. 17
St. Louis River and North End of Posey Island
Cloquet

Mr. C. P. Kachelmyer

March 20, 1979

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4. Cloquet Steam Mill Company Site
NW, SW, Sec. 14, T. 49, R. 17
Cloquet
5. Johnson-Wentworth Sawmill Company Site
NW, SW, Sec. 13, T. 49, R. 17
Cloquet
6. Lindholm House
N.E., NE, Sec. 26, T. 49, R. 17
Cloquet
7. Northern Lumber Company
NW, SW, Sec. 14, T. 49, R. 17
Cloquet
8. Northeastern Hotel
N $\frac{1}{2}$, SE, Sec. 14, T. 49, R. 17
Dunlap Island, East of Hwy 33
Cloquet
9. Upper Northern Sawmill Company Site
NW, SW, Sec. 13, T. 49, R. 17
Cloquet
10. Water Power Sawmill Company Site
NW, SW, Sec. 13, T. 49, R. 17
Water Power Island
Cloquet

This indicates a rich history which focusses on the fur trade and logging eras within the vicinity of Cloquet which must be carefully considered in planning for this project. Although no archaeological sites have been recorded within the study area, the proximity of the St. Louis River which surely functioned as a prehistoric transportation route, demands that a thorough survey for archaeological data be conducted as preliminary highway design efforts continue.

Therefore, a preliminary archaeological assessment (including sampling surveys) is recommended for the area as soon as alternate corridors are defined.

If you have any questions or comments please contact Ms. Susan Queripel, Environmental Assessment Officer, State Historic Preservation Office, James J. Hill House, 240 Summit Avenue, St. Paul 55102, phone (612) 296-0103

Thank you for your participation in this important effort to preserve Minnesota's heritage.

Sincerely,

Donna Coddington, ASST SAPO
for
Russell W. Fridley
State Historic Preservation Officer

RWF/csm



FOUNDED IN 1849

MINNESOTA HISTORICAL SOCIETY

690 Cedar Street, St. Paul, Minnesota 55101 • (612) 296-6126

20 April 1984

Mr. C.P. Kachelmyer
Preliminary Design Engineer
Department of Transportation
Room 612H - Transportation Building
St. Paul, Minnesota 55155

Dear Mr. Kachelmyer:

RE: S.P. 0906-31, 0906-32, 6911-25, 6911-26
(T.H. 33)
From Jct. I-35 South of Cloquet
To Jct. T.H. 53 at Independence
Upgrading and Relocation
Carlton and St. Louis Counties

MHS Referral File Number: F-396, S-973
(PLEASE REFER TO THIS NUMBER IN
ALL FUTURE CORRESPONDENCE)

Trunk Highway archaeologist Les Peterson has forwarded a summary of work completed and recommendations for future work to this office in a memorandum dated April 4, 1984. We concur with the conclusions resulting from survey work completed to date and endorse the recommendations for future survey. Rather than repeat the memo, it is included by reference, and a copy enclosed for your information.

We do specifically note that the small 20th century building complex identified in the 1983 survey (field number 83-1-6) is not eligible for listing to the National Register of Historic Places, given available documentation.

Again, thank you for your participation in this important effort to preserve Minnesota's heritage.

Sincerely,

Russell W. Fridley
State Historic Preservation Officer

Encl.

cc: Les Peterson, Archaeologist
Fort Snelling History Center

DEPARTMENT MINNESOTA HISTORICAL SOCIETY
Trunk Highway Archaeology

Office Memorandum

TO : Ted Lofstrom
Environmental Assessment Officer

DATE: April 4, 1984

FROM : Leslie Peterson
Trunk Highway Archaeologist

PHONE: 726-1171

SUBJECT: MnDOT
S.P. 0906-31, 0906-32, 6911-25, 6911-26 (T.H. 33)
From Jct. I-35 South of Cloquet
To Jct. T.H. 53 at Independence
Upgrading and Relocation
Carlton and St. Louis Counties
MHS Reference File F-396

MnDOT has requested a status report from SHPO on this complex project, which has been under review since 1979, to allow planning to progress. As the most recent MnDOT submittal (February 22, 1984) and enclosed scoping document describe, this 16-mile project is currently in the alternate route selection stage with two major routes under consideration. The primary route which has been studied for some years generally follows the existing alignment of T.H. 33, diverging slightly in several places along its length, including two 4-to-5 mile long alternate alignments on new locations at the southern terminus which bypass the city of Cloquet on the east and west sides, respectively. A newly defined "Range Line Route" follows a totally new alignment 1-to-2 miles east of the "In-place Alignment" (Figure 1).

Project History

In 1979 review of an initial submittal of alternate alignments in the Cloquet vicinity resulted in the identification of 10 State Inventory sites in the project area, including:

1. Dunlap Island
2. Phillips "66" Station
3. Cloquet Boom House & Sorting Sheds
4. Cloquet Steam Mill Company Site
5. Johnson-Wentworth Sawmill Company Site
6. Lindholm House
7. Northern Lumber Company
8. Northeastern Hotel
9. Upper Northern Sawmill Company Site
10. Water Power Sawmill Company Site

After approximately four years of inactivity on the project and resulting low prioritization on the Trunk Highway Survey, new planning

Ted Lofstrom
Page 2
April 4, 1984

data were submitted in 1983 which defined the limits of proposed construction for the upgrading of the T.H. 33 existing alignment, including the east and west bypass corridors at Cloquet (Figure 2). At that time, MnDOT requested that field surveys for cultural resources be conducted in the northern twelve miles of the project defined as segments "A," "B," and "C" but that such surveys be deferred in the southern four miles (Segment "D") pending better definition of the limits of the three alternate study corridors. The requested field surveys were conducted in September and October 1983. The project, methods, and results of that survey are presented on pages 35-43 of the 1983 Annual Report of the Trunk Highway Survey (copy enclosed).

Project Review Status

The various planning segments of the alternate corridors for T.H. 33 have been reviewed at several different levels of intensity and thus require different recommendations for future action.

1. "EXISTING T.H. 33 ALIGNMENT"

a. Segments "A," "B," and "C"

As documented in the 1983 Annual Report, surface reconnaissance and shovel testing were completed by Trunk Highway Survey staff in 1983 within all of Segments "A," "B," and "C" (Figure 2). No historical or archaeological sites were known to exist within these project segments prior to the survey. The 1983 survey resulted in the recording of one new possible site--field numbered 83-1-6, a small early to mid-twentieth century building site and crib well. It is my opinion that this feature exhibits little potential for yielding significant new information about past human occupation. It has, thus, been recommended that the site warrants no further consideration. It is my opinion that surveys within Segments "A," "B," and "C" of the existing T.H. 33 alignment have been adequate to define the existence of significant cultural resource sites in that portion of the project study area and that no further field investigations are required in those segments unless the project design is altered.

b. Segment "D"

Although Segment "D" comprises three alternate alignments through Cloquet, including 1) Through Town Corridor, 2) East Corridor, and 3) West Corridor (Figure 2), field reconnaissance on these corridors was deferred in 1983 to await better definition. Therefore, review to date in Segment "D" has been limited to a records check for involvement of known sites.

(1) "Through Town"

As noted in the enclosed 1983 section, including Figure 6, the currently proposed construction for T.H. 33 on the "Through Town" route directly affects only one site listed on the state inventory--Dunlap Island. This "site" is amorphously defined, however, and will require better definition during the course of survey. Two additional inventory sites, the Frank Lloyd Wright Service Station and the Northeastern Hotel, are located within several hundred feet of the proposed corridor but do not appear to be directly affected under present plans. No archaeological sites are known to exist in the area of the "Through Town" corridor.

(2) "East Corridor"

A review of existing records has revealed the presence of no historic or archaeological sites in the proposed "East Corridor" for Segment "D."

(3) "West Corridor"

A review of existing records has revealed the presence of one State Inventory historic site, the Cloquet Boom House and Sorting Sheds complex on the St. Louis River at the west edge of Cloquet in the vicinity of the "West Corridor" for Segment "D." The exact location, condition, and significance of this site is unclear at the present time, however, as is its exact relationship to the study corridor.

2. "RANGE LINE ROUTE"

The "Range Line Route" depicted in Figure 1 was newly submitted by MnDOT early in 1984. Therefore, no field review of any kind has been conducted within its limits. A review of existing records, however, has revealed involvement of no known historical or archaeological sites or data.

Summary and Recommendations

On that basis, it is my opinion that adequate records review and archaeological field survey has been conducted within Segments "A," "B," and "C" covering the northern 12 miles of this project. The one cultural resource site discovered in the study area during the 1983 field survey consisted of a small twentieth century building complex (Field #83-1-6) which appears to exhibit little historical or archaeological significance. I would, therefore, recommend that no further review of Segments "A," "B," and "C" is warranted unless the present corridor design is altered.

Ted Lofstrom
Page 4
April 4, 1984

I would recommend that archaeological surveys will be required within any of the three alternate corridors for Segment "D" which remain under consideration. These surveys should be conducted with the goal of more accurate definition of the project's relationship to the known historic resources as well as reconnaissance for as yet unrecorded sites at these high potential St. Louis River crossings.

I would also recommend that reconnaissance level surveys be conducted within the new "Range Line Route" if it remains under active consideration since the project area has apparently never been assessed for archaeological potential in any way in the past.

Please consider this summary and recommendations regarding the current MnDOT proposal for upgrading of T.H. 33 from Cloquet to Independence and forward a status report to C.P. Kachelmyer at MnDOT.

Leslie Peterson
Trunk Highway Archaeologist
Minnesota Historical Society

LP:lt
ENC

DISTRICT 1

S.P.0906-31 & 6911-25 & 26, T.H. 33, CARLTON AND ST. LOUIS COUNTIES, FROM JCT. T.H.35 SOUTH OF CLOQUET TO JCT. T.H. 53 AT INDEPENDENCE, ALTERNATE ALIGNMENTS AT CLOQUET, LETTING DATE 1988.

This review involves a segment of an 18 mile long upgrading and relocation project from I-35, south of Cloquet, to T.H. 53, 16 miles to the north. This major project has been under review by the Minnesota Trunk Highway Archaeological Reconnaissance Survey since 1983. The current review involves three alternate corridors for the revision of T.H. 33 from I-35, two miles south of Cloquet, to Morris Thomas Road, four miles to the north. The current alternates include a through town upgrading of the in place alignment, and expressway bypass alternates approximately one mile east and west of the present alignment (Fig. 1).

During October 1986, reconnaissance surveys were conducted in the proposed east bypass alternate corridor. This surface survey resulted in the location of one cultural resource site within the study corridor.

SITE 86-1-3, BROOKS-SCANLON MILL COMPLEX
NW 1/4, NW 1/4, Section 30, T49N, R16W
Carlton County

Surface reconnaissance was conducted within the proposed east expressway bypass alternate for the Cloquet segment of T.H. 33 October 15 and 16. This review resulted in the identification of historic building ruins within the study corridor. The massive concrete building foundations, piers and footings are remnants of the Brooks-Scanlon Lumber Company complex which operated in this location from 1901 to 1908. The mill structures were removed in 1909. The proposed east alternate corridor passes through the west end of the mill complex and will potentially affect the mill pond, the dressed lumber sheds, the original rail line and the mill boarding house. Assumed construction limits would apparently also affect the Planing Mill building and possibly the company doctor's office (Fig. 2).

A preliminary review of these data by the SHPO staff has indicated that the affected segment of the mill complex may be potentially eligible for nomination to the National Register of Historic Places. More accurate mapping of this building complex and definition of its relationship to the proposed alternate highway corridor will be completed in November.

Additional surveys will be conducted within the limits of the three proposed study corridors during November 1986. This project has been assigned reference numbers F-396 and S-793 by the SHPO.

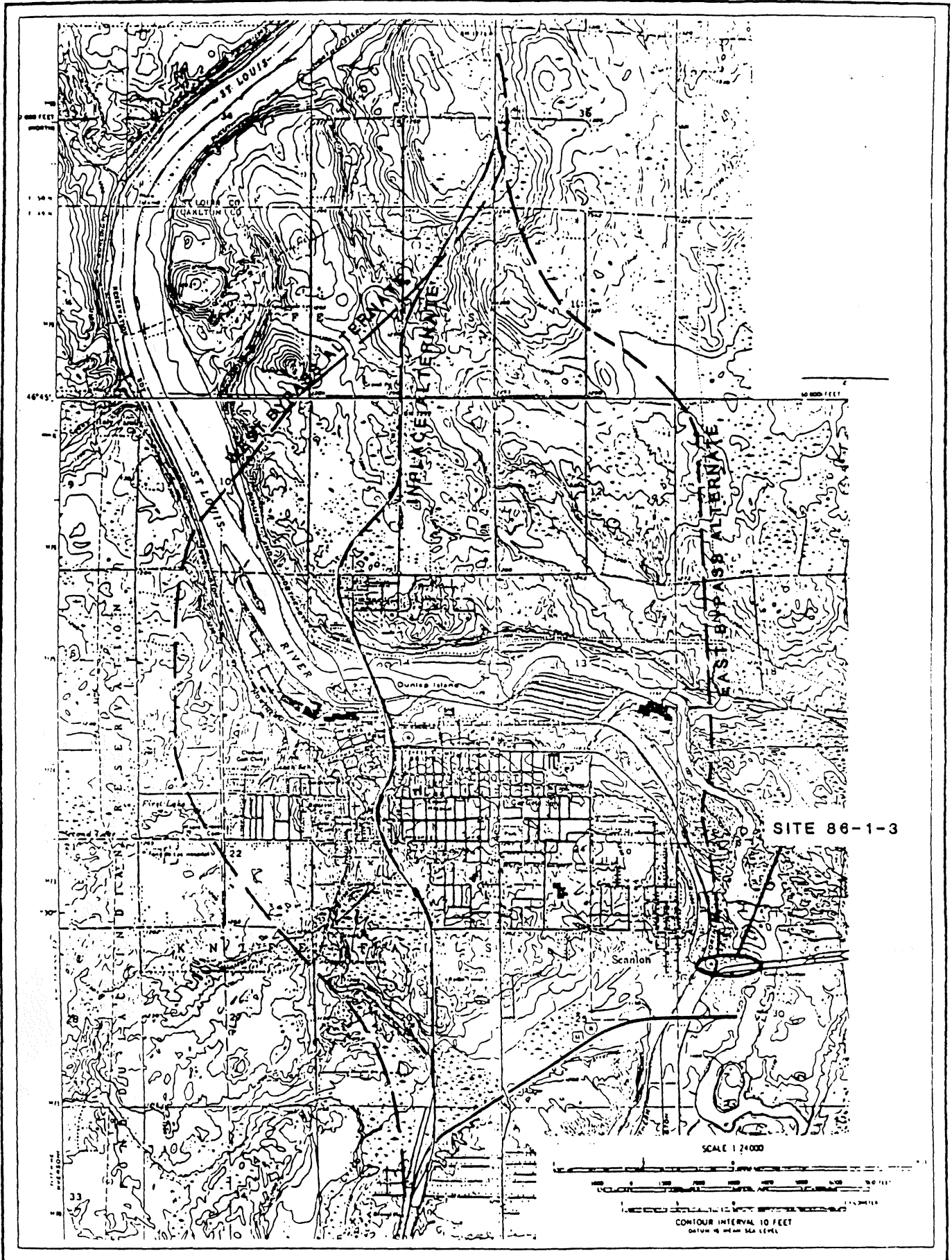
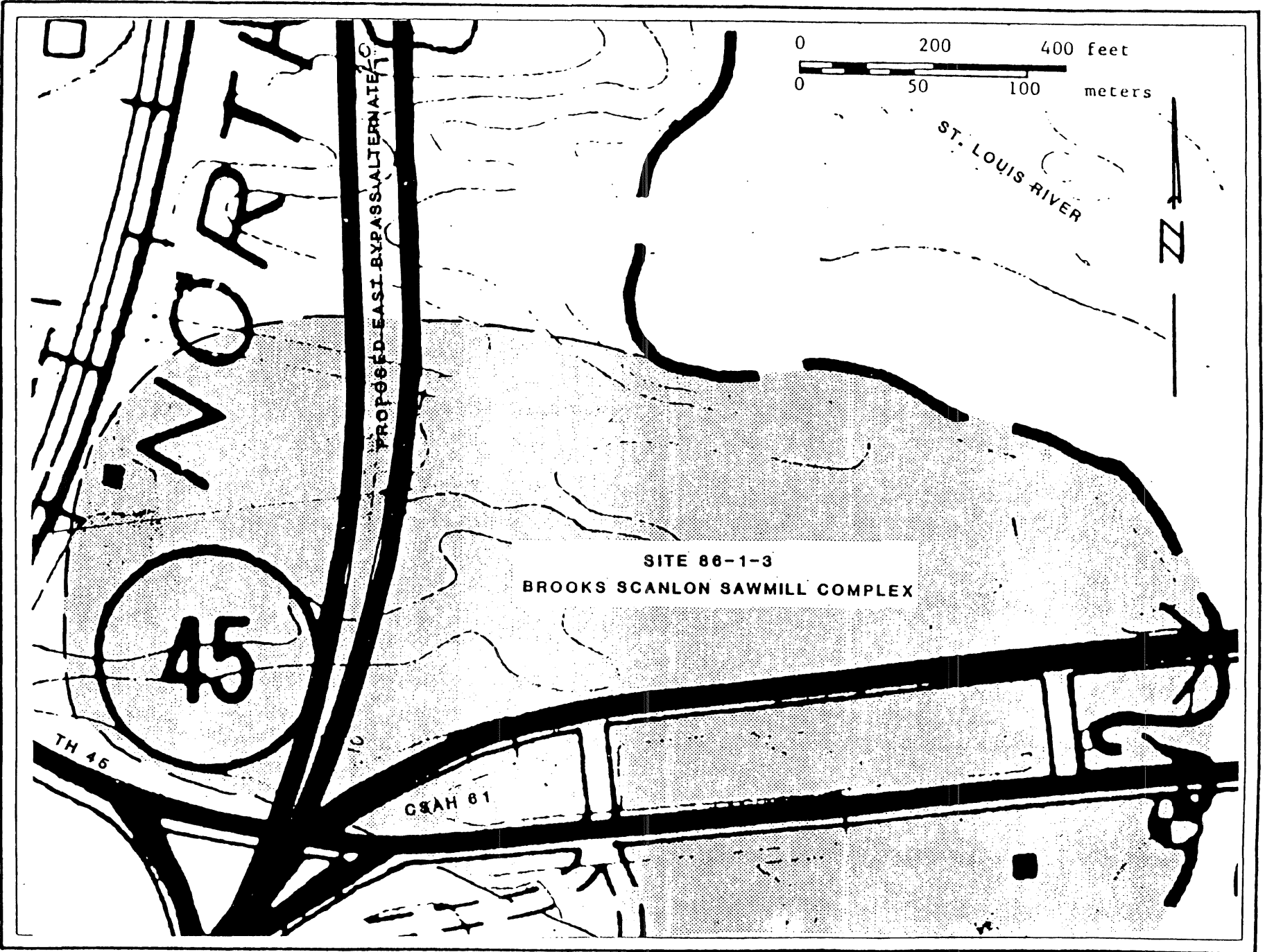


Figure 1. Index map for proposed S.P.0906 and 6911 for the upgrading of T.H. 33 at Cloquet, in Carlton and St. Louis Counties.

Figure 2 . General location of the Brooks - Scanlon Sawmill Complex to the south end of the east expressway bypass alternate for S.P. 0906 and 6911 for T.H.33 at Cloquet, Carlton County.





United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

DEC 3 1984

ER 84/1216

Mr. Roger Borg
Division Administrator
Federal Highway Administration
Suite 490 Metro Square Building
St. Paul, Minnesota 55101

Dear Mr. Borg:

This responds to a request for the Department of the Interior's comments on the draft environmental/Section 4(f) statement for TH-33 (from I-35 to US-53), Carlton and St. Louis Counties, Minnesota.

PRELIMINARY SECTION 4(f) COMMENTS

Albrook School. We would object to Section 4(f) approval of the use of land from the Albrook School athletic field by the four-lane West alternative, since feasible and prudent alternatives clearly exist that would avoid this impact. We recommend selection of either the two-lane West alternative, either of the East alternatives, or the No Build alternative in this vicinity.

Pine Valley Park. We note that the presently preferred urban section temporary No Build alternative will not impact Pine Valley Park. As an aid in your future planning, however, we would likely object to Section 4(f) approval of the use of land from Pine Valley Park by the West Cloquett Bypass alternative since feasible and prudent alternatives apparently exist that would avoid this impact. We recommend further design studies on the Through Town and East Cloquett Bypass alternatives.

Veterans Park and Spafford Park. We note that the presently preferred urban section temporary No Build alternative will not impact these parks. We note further that the Through Town alternative, if it were selected at some future date, would not require the taking of right-of-way from Veterans and Spafford Parks, but that it would run adjacent to them. Any future design work on the Through Town alternative should consider and resolve noise and access problems that may occur in the vicinity of these parks due to increase in traffic.

Historic Properties. We note that the presently preferred urban section temporary No Build alternative will not impact historic properties (except perhaps the Frank Lloyd Wright gas station). We also note that design-level studies may develop specific alignments for all of the corridor alternatives that would avoid impacts to all historic properties except Dunlap Island (Through Town alternative). We, of

course, recommend that this be done, and defer further comment until we have an opportunity to review the results of such studies. Further discussion, however, should be included in the final statement regarding impacts of the No Build alternative on the Frank Lloyd Wright gas station, and mitigation developed to prevent deterioration of that property until a permanent alternative is selected for the urban section of the project.

ENVIRONMENTAL STATEMENT COMMENTS

The draft statement adequately assesses impacts on fish and wildlife resources that may be affected by the proposed alternatives. In general, four-lane alternatives have considerably more adverse impacts on fish and wildlife resources compared to a two-lane upgrade. Resources affected by proposed construction include, but are not limited to wetlands, floodplains, trout streams, threatened and endangered species, big/small game, waterfowl, furbearers, and passerine birds. Numerous species are included within those general categories and include such species as the mallard, blue-winged teal, woodcock, rainbow/brook trout, white-tailed deer, beaver, otter, and various warbler species.

Impacts on Wetlands

Executive Order 11990 (Protection of Wetlands) requires that Federal agencies avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds; (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

We recommend that all alternatives be rigorously examined in light of this Executive Order. Of the various alternatives presented in the draft statement, an adequate two-lane upgrading would have the least wetland impacts (15 acres), while a four-lane upgrade on new alignment would present the most wetland involvement (approximately 50 acres). Although compensation measures to off-set wetland losses are discussed for all project alternatives, further discussion of alternatives is needed in terms of practicable avoidance of wetland impacts.

Adequate two-lane upgrading (excluding the No Build alternative) would appear to most closely reflect the intent of Executive Order 11990. This, however, depends on the adequacy of traffic projections for the project as discussed below.

If after full consideration of the wetlands Executive Order and the provisions thereof, a four-lane upgrade alternative is selected as the preferred alternative, we recommend construction of two companion lanes immediately adjacent to the existing two lanes. This alternative appears to be the least environmentally damaging, would utilize the existing rights-of-way, and reduce economic costs associated with the project. In environmentally sensitive areas, some alteration of the companion two lanes may be appropriate. For example, in the Dutch Slough/White Pine River area, we recommend two-lane construction of a western alignment. Since the

Mr. Roger Borg

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existing two lanes were built longitudinally through this area, construction of an additional two lanes (on a western alignment) in an already disturbed area will have less impact than construction on totally new alignment. The preferred alternative swings east of the existing corridor involving approximately 2 miles of new alignment through a high quality upland area which is virtually undeveloped. The river crossing along this alignment would adversely affect a productive trout stream and may further reduce utilization of the White Pine River floodplain as a travel corridor for white-tailed deer and various furbearers.

Regardless of the alternative selected, numerous wetland basins will be adversely affected by proposed construction activities. The principal wetlands involved with the project include palustrine emergent, scrub-shrub and forested wetlands (formerly Types 1, 2, 3, 6, and 7). These wetlands fall within Resource Category 3 of the Fish and Wildlife Mitigation Policy and are of a medium to high value for various evaluation species. The mitigation planning goal for these wetlands is no net loss of habitat value. As discussed in the draft statement, you have agreed to compensate for that wetland acreage affected by construction activities. In cooperation with the Minnesota Department of Transportation (MNDOT), the Minnesota Department of Natural Resources (MNDNR) and the U.S. Fish and Wildlife Service (FWS), a tentative wetland compensation proposal has been discussed. Agency representatives have agreed to utilize the Habitat Evaluation Procedures (HEP) developed by the FWS to quantify wetland impacts and to determine the amount of wetland compensation to be required. The FWS will work closely with MNDOT and MNDNR to arrive at a mutually acceptable compensation plan. We strongly recommend that this plan be included in the final statement in accord with US-DOT's "one-stop" environmental processing policy.

We note that on pages 13 and 14 of the draft statement, various statements and projections are made relative to Average Daily Traffic (ADT) and projected ADT for TH-33. Traffic volumes for TH-33 are projected to increase by approximately 13 percent, and most of that increase is attributed to development of Voyageurs National Park (VNP). No source, however, is cited for these figures.

We understand that the Federal Highway Administration (FHWA), in cooperation with the National Park Service (NPS), completed a draft Voyageurs National Park Road Access Study in February 1984. This study is a primary source for regional traffic projections. Since the proposed project is largely justified on the basis of projected VNP visitation, and Executive Order 11990 findings related to practicable alternatives would be based for the most part on traffic projections, the most up-to-date information should be used to justify alternative selection. Therefore, we strongly urge that an executive summary of the FHWA VNP study be included in the final statement. Additional technical details regarding VNP visitation figures may be obtained from the NPS

Mr. Roger Borg

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and should be briefly presented in the final document.

Threatened and Endangered Species

The draft statement accurately identifies the three threatened or endangered species, i.e., bald eagle, peregrine falcon, and gray wolf, that occur within the project area. The FWS advises that it concurs with your determination that proposed activities will not affect the bald eagle or peregrine falcon. However, this same determination cannot be made for the gray wolf.

Although data on wolf movements within the project area are generally lacking, all proposed alternatives lie within the peripheral range of the species and wolves do frequent this Region. Considering proposed improvements (two-lane/four-lane upgrading), each alternative may affect wolves by increasing the possibility of road kills and may also act as a barrier restricting dispersal to the southeast. Regardless of the alternative selected, gray wolves may be adversely affected by proposed upgrading. The probability of adversely affecting wolves is increased with selection of a four-lane upgrade alternative. However, based on population estimates for this region, it is likely that a relatively small number of wolves would be affected by this action.

Therefore, based on the best information available at this time, it is FWS's biological opinion that this project will not jeopardize the continued existence of the gray wolf or adversely affect critical habitat listed for this species. However, should additional information become available which identifies impacts that were not considered in the draft statement, you should reinitiate consultation with the FWS.

Other Areas of Concern

It appears that both the Through Town Corridor and the East Corridor may have some impact on islands owned by this Department's Bureau of Land Management (BLM). If the highway right-of-way will encroach on any of these islands, the FHWA must request an appropriation for a Federal-aid highway in accordance with BLM's Manual 2805 procedures. BLM advises that since its goal for these islands is to transfer them to the MNDNR for management as part of their Canoe and Boating Route Program, it is necessary to obtain MNDNR's agreement before granting this appropriation. The islands would also fall under the protection of Section 4(f). Therefore, we suggest that you coordinate this matter with BLM and MNDNR.

FISH AND WILDLIFE COORDINATION ACT COMMENTS

The FWS advises that it anticipates no objection to the issuance of any required Corps of Engineers permits, contingent upon the provision of appropriate measures to avoid or mitigate project impacts on fish and wildlife resources.

Mr. Roger Borg

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SUMMARY COMMENTS

The Section 4(f) comments in this letter are provided to give you an indication of our thoughts about the Section 4(f) information and involvements. They do not represent the results of formal consultation by the Department of Transportation with the Department of the Interior, pursuant to the consultative requirements of Section 4(f) of the Department of Transportation Act. Such requirements will be fulfilled only when the Office of the Secretary of this Department comments separately on any Section 4(f) statement which may be prepared and approved by you for circulation.

As this Department has a continuing interest in this project, our Bureaus at the field level are willing to cooperate and coordinate with you on a technical assistance basis in further project evaluation and assessment. For matters pertaining to cultural, park, and recreational resources, please contact the Regional Director, Midwest Region, National Park Service, 1709 Jackson Street, Omaha, Nebraska 68102 (Telephone: FTS 864-3431 or commercial (402) 221-3431). For questions pertaining to fish and wildlife resources, please contact the Field Supervisor, U.S. Fish and Wildlife Service, Ecological Services, 333 Sibley Street, St. Paul, Minnesota 55101 (Telephone: FTS 725-7131 or commercial (612) 725-7131). And for matters pertaining to the islands owned by the Federal Government, please contact the Bureau of Land Management, Milwaukee District Office, P.O. Box 631, Milwaukee, Wisconsin 53201-0631 (Telephone: FTS 362-4401 or commercial (414) 291-4429).

We appreciate the opportunity to provide these comments.

Sincerely,


Bruce Blanchard, Director
Environmental Project Review

cc: Mr. John Sandahl
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Appendices

INTRODUCTION

This appendix contains several sections. First, a brief historical background is presented. Second, a brief discussion of the methodological issues surrounding this question; the third contains a review of the research findings on this topic from the professional transportation literature. The fourth section contains a discussion of academic work, primarily in marketing, which addresses this general topic; and last a brief discussion of legal questions which have surfaced on this topic is presented. A bibliography is also provided for anyone wishing to pursue further study of this issue.

BACKGROUND

An historically common pattern of community development associated with highways has been for residences and commercial establishments to locate along both sides of a roadway as it passes through a small city or town. Virtually every village town and city in Minnesota developed in this manner. The notable exceptions were those towns which grew adjacent to a river or lake. Prior to the completion of the interstate highway system in Minnesota, one could not travel any significant distance in the state without having to pass through or near the center of a number of small towns or cities. During the 19th and early 20th century, this development pattern posed no particular difficulty. Traffic volumes were low, as were vehicle speeds. Crossing the highway did not present any particularly great danger, and did not engender any time delays or other inconvenience as there was no congestion. Travelers were not particularly inconvenienced by

having to pass through the town. As these villages and towns grew, the highways very often came to serve as the "Main Street" in these communities. Frequently the hub of commercial activity in the town was the intersection of a highway and some major cross street. The central business district often grew around and along these highways.

As time passed, roads were improved, and vehicles traveled at higher speeds. This began to cause occasional conflict within communities. Motorists whose sole intention was to get through the town desired fast travel, and were often at cross purposes with those who wished to cross the highway, or who had local destinations. Traffic signals were often installed to provide protection for local motorists and pedestrians and to facilitate local vehicular movements. Having to slow significantly, or stop one or more times in each small town, was a source of great irritation for many motorists. It also constituted an increased cost for road users, particularly large trucks. Further, a highway with high vehicle speeds passing through the middle of these towns was seen as a danger to local citizens. Children, and others with a mobility impairment, were at risk crossing a high speed highway. As traffic grew, congestion sometimes became a serious problem. This is still a serious issue in many smaller cities throughout Minnesota which have a major highway passing through the center of the city.

As a solution to the many problems associated with highways in small towns, states began to construct roads which were designed to route "through traffic" away from the downtown area. Sometimes truck routes were constructed or designated. The aim

was to provide a highway which would facilitate the movement of motorists who did not have origins or destinations within the community. At the same time traffic conflict and congestion within the business district was reduced so that the "Main Street" would again function as a commercial avenue. Increased safety, and many other local benefits, resulted from this practice.

As the practice of constructing these "bypasses" became more common, many people became concerned. They wondered if the rerouting of traffic away from the center of the city would result in economic stagnation for the town, and perhaps the decline of businesses within the community. The plans for the construction of the Interstate Highway System further intensified this concern. In the case of the interstate system, it was being proposed to construct roads which would effectively bypass every small town and city in the nation. The traffic which these new roads would carry would of course be attracted from other roads, many of which had formerly traveled through the cities and towns of America. The number of cities which were to be bypassed resulted in raising the level of concern from being primarily local to much a broader scale.

This concern resulted in a large number of research studies being undertaken. Many were conducted by state highway departments in cooperation with the federal government. Many were conducted by universities, and by professionals and consultants outside of academia. Several such studies were conducted in Minnesota, beginning in 1960. See references at the end of this appendix.

The bulk of this research was conducted during the 1960's and early 1970's. Since that time only occasional work has been published on this topic. The reasons for this recent lack of work would seem to be twofold. First, the interstate system is complete, or nearly so, and much of the concern was generated by the impacts of interstate construction. Second, the results of the research have been so consistent across time and geography, that little additional knowledge appears to be gained from conducting additional research; the question has essentially been answered, albeit not to everyone's satisfaction.

METHODOLOGICAL ISSUES

The issue of predicting the effects of traffic variation to businesses revenue is a conceptually simple problem, but one where it is difficult to place an adequate design into the field which would result in valid and replicable findings.

Multiple regression or a similar technique would be an ideal analytical tool for this type of analysis. The basic question is to isolate the independent effects of one variable (i.e. traffic volume) from among the effects of a multitude of other variables, (e.g. pricing structure, return policy, availability of goods, cleanliness of store, brand of good, advertising, general economic vigor of community, etc. etc.) as it affects a dependent variable (business volume). A regression model would require a great deal of data on these and other variables, for stores at variable distance from some well traveled roadway. Such a model would provide information on how much of the variance in the

dependent variable, (i.e. business volume) could be attributed to variations in traffic volume, statistically controlling for the effects of these other variables. It is essential to control for the effects of the dozens of other variables which influence patronage of a retail business in order to draw valid inferences relative importance of each in predicting business volume. Regarding the the dependent variable, Business volume, a design would probably include differentiation of units of analysis into several categories, by type, e.g. food, beverage furniture, service station, etc.

A comprehensive review of literature in this area has failed to reveal any such model. To the best knowledge of staff of the Minnesota Department of Transportation, no statistical or econometric model exists in the professional literature which would allow for the specification of a specific effect to a particular business or even to type of business using traffic volume as the predictor variable. It is not possible to disaggregate such effects given the present state of knowledge in this area.

Case Study Approach

The most frequent approach to studying the effects of bypasses upon economic activity has been the community case study. In this approach, a community for which a bypass has been proposed, or one which had already been bypassed, is selected for study. The general approach is to analyze the activity level of some economic variable or set of variables. Some of the variables

are direct economic variables, i.e. retail sales, sales tax collections, gasoline sales etc. Others are proxy variables which are thought to be indicative of overall economic activity, such as vehicle registrations, etc. In the research conducted in Minnesota, analysis has included a large number of variables. Gasoline sales, total retail sales, bank debits, address changes, housing and other construction starts, business income taxes, newspaper circulation, vehicle registration, employment levels, and others have been examined. In the typical case, the level of these variables is assessed for some number of years prior to the bypass, and then for some number of years following construction of the bypass. Any changes are then discussed as they may relate to the bypass having diverted through traffic.

Limitations of the Case Study

The major methodological shortcoming of the case study approach lies in a lack of comparison. Without a basis of comparison, inferences become very tentative, and such a study runs the risk of being merely anecdotal. Framed in the language of a classic experimental design, it is similar to conducting an experiment using an experimental treatment, but no control group. The result is that any observed changes in the variable under analysis following the treatment MAY be due to the treatment, or they may be due to other factors, unrelated to the variables being examined. The problem is that the researcher cannot determine with any degree of certainty what influence the experimental treatment exerted on the variable in question. The countering argument is that a single

community is more like itself than it is like any other community, and that it forms the best basis for comparison.

Other than the problem of obtaining meaningful comparisons, the major problem of the case study approach is one of external validity. That is, it is problematic whether the findings can be generalized to any other setting. The design and the conduct of case study research is sometimes highly idiosyncratic, tailored to the unique community under investigation. Interviews tend to be informal and unstructured. This results in a case study being difficult to replicate, being bound by both time and place. It always an open question whether a set of findings from one study in one location at one time can be generalized or extrapolated to another place and another time. The case study approach is the one which was generally undertaken during the peak of community bypass research.

FINDINGS AND CONCLUSIONS

Transportation Literature

As indicated above, statistical models providing for the disaggregation of effects have not been developed. However, this subject has been the subject of a substantial body of research literature. Many bypass studies have been conducted by or for FHWA, and by many states (See references). The conclusions of this body of literature are strikingly consistent, as follows.

A. When examined at the level of community or county, a

bypass does not exert a discernible economic effect. That is, when examined before and after a bypass is constructed, the normal economic indicators for counties and/or communities, (e.g. total retail sales), do not reveal any significant difference from similar non-bypassed communities or counties. Indeed, in some cases these indicator variables have increased.

B. Although overall community economy is not adversely affected in a detectable manner, some individual businesses within the community may be adversely impacted.

1. There is evidence that individual businesses whose market segment consists largely of the motoring public may be seriously adversely impacted by traffic rerouting. Generally, these businesses have been defined on an ad hoc basis. Businesses which have normally been defined as traffic sensitive include service stations, motels, and convenience food outlets.

a) Some of these businesses may regain lost customer flow through a variety of marketing and merchandising measures. These would include more aggressive marketing, area advertising, more competitive pricing, increased variety of inventory, provision of more specialized goods or services, focusing on a segment of the market, etc.

b) Some businesses may relocate. Frequently businesses relocate near the new highway and may realize great success. The many vital retail areas

located along community bypasses throughout the state are examples of relocation and growth. The economic vigor of the business community at the intersection of I-35 and TH 48 at Hinckley is one such example.

c) Some businesses may close.

- C. There is no evidence that "non-motorist" businesses are adversely affected. There is no evidence that businesses which offer "shopping" or "specialty" goods or services (e.g. major consumer durable goods such as television sets, refrigerators; financial services; personal services such as haircutting, etc.) are affected.
- D. Bypasses sometimes exert a beneficial impact upon local shopping areas. In many small communities which have a major highway running through them, the traffic situation is frequently very congested. There are often conflicts between through traffic and traffic which is destined for the local shopping area. On-street parking may be difficult or non-existent. In such a case, high traffic volumes reduce the attractiveness of the local shopping area for local residents to a degree where people will avoid it. When traffic whose origins and destinations both lie outside the community is routed away from the center of such a locale, congestion and conflict between through and local traffic is virtually eliminated. This may result in a more pleasant shopping experience for local repeat shoppers, upon whom most

businesses depend.

Academic Research

Given the importance often attached to location by retailers, store location as a variable in retail marketing has been given attention in the professional literature. Generally, this attention has been non-quantitative. Indeed, it is often quite subjective, and not infrequently consists of little more than common sense advice, e.g. "estimate the volume of business." As observed by Hughes (1978:411) "It is a combination of art and science."

Early writing in this area placed relatively great weight on traffic volumes. However, this began to shift as more sophisticated marketing concepts and research techniques were developed. Concepts such as market segmentation, target markets, psychographics, demographics, etc, have revised the idea that the market is an undifferentiated entity. See, e.g. Lilian and Kotler, 1983; Kinnear and Bernhardt, 1983; Mason and Mayer, 1984. Butcher and McAnelly (1973) articulate the recent view that absolute volumes of traffic are not so important for most businesses as had earlier been thought.

...Until rather recently, it was felt that the success of a store was in direct proportion to the total volume of pedestrian and auto traffic that passed the store. Lately this opinion has shifted and new concepts have been introduced. To a large extent this has been due to the mobility of shoppers. A heavy auto traffic location is not an absolute guarantee of success. Most people can and do drive right past one store on their way to another.

...qualitative traffic is far more important than simply the gross volume of traffic. (1973:224)

Rachman (1975:323) reports that outlets offering "shopping" or comparison goods are not dependent on traffic, although other types of shops are. James, et. al., reiterate this view, suggesting that while the "volume, nature and flow of traffic past the site" are important, they go on to add that, "a site where automobile traffic consists primarily of people going to and from work would be acceptable for a gasoline station but undesirable for a laundromat." (1975:86). In other words, the importance which should be attached to traffic level varies in an interactive manner with the nature of the business. Davidson, et.al. reinforce the idea that the nature of the business is very important.

The opinion was once held that the total of volume of traffic passing a site was the most significant factor determining its value for merchandising purposes. Experience has demonstrated, however, that qualitative characteristics of the traffic and its convertability into sales volume are far more important considerations for most kinds of stores (1975:504).

Rosenbloom (1981) notes that "some types of traffic may be largely irrelevant to the retailer." He goes on to note however, that for some types of business, traffic volume is very important.

The importance that should be attached to the traffic levels associated with particular sites varies widely for different kinds of retailers. For example, a drug retailer that sells a wide variety of convenience goods -- items that are

purchased by almost everyone -- should attach a great deal of importance to the level of traffic at the store site. A specialty retailer, on the other hand -- such as a camera shop that sells high quality photographic equipment -- should not give as much weight to traffic levels because in all likelihood, only a small fraction of the number of people passing by the store are prospects for the store's merchandise (1981:340).

The nature of the merchandise handled by the retail outlet appears to be the major factor in assessing the importance of traffic.

The type of merchandise sold by the retailer is a key determinant of the location the consumer is likely to choose. Stores selling mainly convenience goods, for example, must be in a very convenient locations that are highway accessible to consumers in the immediate area. Thus, stores selling convenience goods are not often found in any type of location that is off the beaten path.

Stores selling shopping goods, however, do not have to be as close to consumers as those selling convenience goods. Rather, because consumers tend to shop around at several stores when purchasing such merchandise, the type of location that places the shopping goods retailer in close proximity to other retailers selling similar merchandise is very appropriate. These locations include regional shopping malls and shopping centers, downtown business districts, secondary or neighborhood shopping centers, and free standing stores on highways near other free standing stores selling similar merchandise.

Finally, stores selling specialty goods can select locations that are more out of the way and not near other stores selling similar merchandise. Free standing stores in less prime locations of the city or suburbs are often quite adequate for selling this type of merchandise (1981:332).

The thrust of this writing is that for many retail outlets, the "through traveler" does not constitute a significant segment of the retailer's market. However, for other outlets, e.g. gasoline

stations, every automobile passing nearby constitutes part of the market, since every automobile represents a potential customer. For this retailer, substantial alterations in the volume of traffic exposed to on-site advertising can lead to corresponding fluctuatons in customer flow.

SUMMARY

Integrating this literature, the conclusion is that for most types of business, rerouting traffic will not exert an adverse effect. For certain types of businesses, particularly those whose market is not differentiated, but consists of virtually everyone who may pass near their place of business, reductions in the volume of nearby traffic should be expected to translate into reduced customer contact, which will in turn exert a direct negative effect on gross revenues.

LEGAL ISSUES

Included among the many rights of property owners is the right of access to any public roadway which abuts the property. This access is a property right which cannot be taken for a public purpose without the owner of the property receiving fair compensation. The historical record contains many instances where the legal rights of persons whose property abuts a public road have been addressed. There is a case on record dating as far back as 1821 where the U.S. Supreme Court denied compensation to a petitioner who claimed damages resulting from roadway grading. This right of access is long established in Minnesota case law.

From time to time, the issue of traffic diversion has been raised in Minnesota courts as well. The Minnesota Supreme Court has spoken on this issue a number of times (e.g. Hendrickson v. State, (1964); State v. Gannon's (1966); and Recke v. State (1974). These and other decisions indicate that while businesses have a right of access to an abutting public road, these same businesses do not have a vested property right to the flow of traffic past their places of businesses. In brief, while business operators sometimes use the phrase, "my traffic," such traffic is not theirs in any legal sense.

Of particular relevance is the Recke case. Regina Recke, doing business as Prairie Motel, brought suit against the State of Minnesota for damages caused by the rerouting of Trunk Highways 169 and 212. Prior to the rerouting of the above mentioned highways, the Prairie Motel abutted and had complete access to the highways, both of which ran along the same right of

way at the point where the motel is located. Following relocation of the highways, plaintiff's property still had complete access to the old highway, now called Flying Cloud Drive. There was no interference with or change whatsoever in the access that plaintiff's property had to the old highway prior to the relocation. The nearest access to the new Trunk Highways 169 and 212 was located approximately 3,000 feet away.

In their analysis of this case, the court acknowledged,

"Because of the relocation of the highway, traffic on the new highway is rerouted away from plaintiff's motel, and there has been an appreciable decline in the market value of the property." (Minnesota Reports, Vol. 298 (1974) p. 501).

In developing the decision in the Recke case, the court drew upon an earlier finding in the Hendrickson case, wherein it had said,

"...The weight of authority, with which we agree, holds that a property owner has no vested interest in the continued flow of the main stream of through traffic, and the state may divert it to a new location without being liable for consequential economic losses which owners abutting on the old highway may sustain." (Minnesota Reports. Vol. 267 (1964) p. 442).

Similarly, In Recke the court held that,

"compensation need not be paid for damages caused by relocation of a highway which results in a diversion of the main flow of traffic. There is no vested right to the flow of traffic under these circumstances." (Minnesota Reports. Vol. 298 (1974) p. 504).

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